je Kining Immal,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES. [The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 2394.—Vol. LI.

LONDON, SATURDAY, JULY 9, 1881.

WITH SUPPLEMENT. PRIOE SUPPLEMENT. SIXPENOE PER ANNUM, BY POST £1 40

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER. No. 1, FINCH LANE, CORNHILL, LONDON, E.C. ESTABLISHED 1842.

Business transacted in all descriptions of Mining Stocks and Shares (British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

Business negociated in Stocks and Shares not having a general market

Every Friday a general and reliable List issued (a copy of which will be forwarded regularly on application), containing closing prices of the week.

MINES INSPECTED.

BANKERS: CITY BANK, LONDON-SOUTH CORNWALL BANK, ST. AUSTELL.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTRELL.

SPECIAL DEALINGS in the following, or part:—
50 Leandhills, £2 2s. 6d.
60 Carnarvon Cop., 19s
50 Derwent, £1 10s.
60 East Caradon, 17s. 6d
90 E. Roman Grav., 17s
60 East Caradon, 17s. 6d
90 E. Roman Grav., 17s
60 East Van, £1 8s. 9d.
60 Ew, Rose, off. wntd.
50 Frontino, £4.
61 Glenrock, £1;4.
62 Glenrock, £1;4.
63 Glenrock, £1;4.
64 Glenroch, £1.
65 Glenroch, £1.
65

** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

BUSINESS in CAMBRIAN MINE Shares,

RAILWAYS—SPECIAL BUSINESS.
FOREIGN BONDS—SPECIAL BUSINESS.
AMERICAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly accounts opened on receipt of the usual cover in these and all Stock Exchange Securities.

JAMES H. CROFTS, 1, FINCH LANE, LONDON. ESTABLISHED 1842.

NDIAN GOLD MINES.—SPECIAL BUSINESS in:—
Indian Kingston.
Svala Moyar.
Indian Phænix.
Indian Trevelyan.
Svala Central.
Indian Trevelyan.
Ooregum.
Albura Bouthern Mysore.
Indian Gelenrock.

Rhodes Reef.
Wynaad District.
Wynaad Perseverance. avala Moyar.
Indian Kingston.
svala Moyar.
Indian Hoenix.
South East Wynaad.
South Indian Gold.
Tambracherry.
Wynaad District.
Wynaad District.
Wynaad Perseverance.
At CLOSE MARKET PRICES, free of commission.
** Reliable information given on any of the above. A daily price list issued ving closing quotations. SPECIAL BUSINESS in Frontino and Bolivis totsi, Ruby, Nouveau Monde, and Richmond.

SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER INES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE DNTHS ON DEPOSIT OF TWENTY PER CENT. JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER 44, THREADNEEDLE STREET, LONDON, E.C. ESTABLISHED 1867.

BUSINESS transacted in STOOK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description.

RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS.

TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.

Accounts opened for the Fortnightly Settlement

A List of Investments free on application.

A List of Investments free on application.

MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
55 Almada,
10 Gt. Polgooth United,
50 Arendal. £2 13s, 9d.
16 Bilue Hills, £3,
60 Boddiris, 20s.
90 Beddiror United, 42s 6
90 Coarnarova, 20s.
10 Cohontales, 2s, 8d.
10 Copiapo, £3 1s, 3d.
10 Devon Griendship, 20s.
11 Time Transported to the service and the principal Home and Foreign Minnes.
10 Devon Griendship, 20s.
11 Time Transported to the service and others.
11 MPORTANT TO INVESTORS.—The position of the TIN market is steadyly propropriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate and in a position of the TIN market is steadyly propriate

IMPORTANT TO INVESTORS.—The position of the TIN market is steadily improving, and in all probability there will be a considerable advance in the grice of this metal very shortly.

Shares in SOUND TIN MINES should, therefore, be bought at present prices, many of them are likely to have an early and substantial rise.

me following are particular
WHEAL GRENVILLE.
WEST GODOLPHIN.
WEST KITTY.
WHEAL AGAR.
WEST POLBREEN.

E.

NEW TRUMPET CONSOLS.
NEW PEEVOR.
WHEAL BOYS.
NEW KITTY.
GOODEVERE.

WILLIAM HENRY BUMPUS, SWORN BROKER. OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C. ESTABLISHED 1867.

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WEST KITTY WEST POLBREEN, and NEW KITTY.

For comments on these and other Mines, Mr. REYNOLDS refers to his remarks on page 854.

MR. EDWARD ASHMEAD, 2, DRAPER'S GARDENS, E.C., MINING SECRETARY, AUDITOR, AND ACCOUNTANT.

FERDINAND R. KIRK, STOCKBROKER 5, BIRCHIN-LANE, LONDON, E.C.

Fortnightly Accounts opened in all Stock Exchange Securities on receipt of the usual cover.

BANKERS: LONDON AND WESTMINSTER, Lothbury.

M ESSRS. ABBOTT AND WICKETT, STOCK AND SHARE BROKERS, REDRUTH. ORDERS BY TELEGRAM PROMPTLY EXECUTED. PENNINGTON AND CO., SWORN BROKERS, 3, ROYAL EXCHANGE BUILDINGS, E.C.,
Transact business in every description of Stocks and Shares.
ESTABLISHED 1869.—BANKERS: ALLIANCE.

TREVINCE

CONSOLS

Which ought to be secured at once, as the mine is daily improving, and they must have a big rise very shortly.

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ESTABLISHED 20 YEARS.
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SORTRIDGE COPPER specially recommended.
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SHARES BOUGHT OR SOLD ON COMMISSION.

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STOCK AND SHARE DEALER,
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OFFERS the FOLLOWING SHARES FOR SALE at PRICE AFFIXED
PROVIDED they are NOT SOLD, WITHDRAWN, or PRICE ADVANCED:—
55 Bodidris, 14s.
50 Derwent, £1 3s. 9d.
100 Drakewalls, 19s.
105 East Devon, offer.
55 East Rose (offer).
55 Friendship, 19s. 6d.
15 Frongoch, £3½.
10 Grogwinion, £2½.
10 Devals-Moyar, £1 13s 100 Mysore Reefs (15s.
170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
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170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
170 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
170 Parka Mines, £1 10s both Indian, £2.
180 Orgam, 15s.
180 Parka Mines, £1 10s both Indian, £2.
180 Orgam, 15s.
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180 Parka Mines, £1 10s Both Indian, £2.
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180 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
180 Parka Mines, £1 0s 5d West Devon, 8s. 9d.
180 Parka Mines Min

NOTE.—Offers can be made where no prices are attached.

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29. BISHOPSGATE STREET, LONDON, E.C.,
Can SELL the following BHARES at prices annexed:
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51 Brazilian Gold, 18.
52 Gindlan Glen, 22 18.
53 Bradel United, 378. 6d
54 Indian Trevel, 21 18.
55 Rhodes Reef, 17s. 6d
50 Bwide United, 37s. 6d
50 Indian Trevel, 21 18.
56 Carn Camborne.
100 I. X. L., 48. 6d.
50 Clorado, £2 5s.
50 Devon Gold, 12s. 6
50 Kit Hill, 18s.
50 Kit Hill, 18s.
50 English-Austra., 2134.
50 English-Austra., 218.
50 Flagstaff, 9s. 3d.
50 Florence of Wales. 18s.
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Municipal Bonds.

Municipal Bonds.

Miscellaneous Shares, &c., &c.

Municipal Bonds.

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LONDON, E.C.—ESTABLISHED 1852. Bankers-London and County Bank, Lombard-street, London, E.C.

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WEARE SELLERS OF THE FOLLOWING:

Offers for any portion invited.

10 Union Trust.
10 Devonport and Tiverton Brewery.
40 Organos Gold.

50 Wheal Jane.
30 South Darren.
ENDEAN AND CO., \$5, GRACECHURCH STREET. TAMAR SILVER-LEAD AND FLUOR-SPAR MINE.

The success of this mine is almost wa fait accompli. Indications in the 27 fm. cross-cut south are favourable for cutting into a rich body of silver-lead at any moment, which will cause shares to rise to E5 or £10 each.

It is therefore not surprising to find parties who havesold shares which THEY OANNOT DELIVER using every endeavour to get hold of them cheaply, and with this object in view "bogus" lots are advertised, and said to be sold by auction at ridiculously low prices. As a matter of fact, no transfers ever come into the company's office for these cheap lots a dvertised.

CAUTION TO SHAREHOLDERS.—Don't be frightened into selling your shares AT ANY PRICE till the nature of the recent discovery is more fully ascertained.

BUY EVERY CHEAP SHARE YOU CAN GET, but do not part with your money until you receive the certificate. By adopting this course you will frustrate the designs of those who depreciate the value of your property by selling shares at low prices, which they do not and cannot deliver.

BEWARE OF PEOPLE SEEKING TO EXCHANGE shares of no value for

THENEW DISCOVERY holds good, the lode being 3 ft. 8 in. wide, producing splendid silver lead, which is much richer in silver than when the lede was first cut inte. A sample assayed by Messrs. Johnson, Matthey, and Co., an the 2nd inst., gave a produce of 73:500 ozs. of silver per ten of 20 cwts., and 80 per cent. of lead. This is the most valuable discovery made in the district since the days of South Tamar. It is, in fact, the same rich lode which preduced over £1,000,000 worth of silver-lead in that mine.

Buyers and Bellers of Tamars should communicate with Messrs. PRIDEAN AND CO., Stock and Shave Dealers, 85, Gracechurch-street, London, B.C. Established 1861.

Rankers—London and Westminster Bank, Lothbury.

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SPECIAL BUSINESS in HALKYN MINES DRAINAGE, RHYDALUN, RHO-BESMOR, DEEP LEVEL NORTH HENDRE, TRUE BLUE, PEN-YR-ORSEDD and others in the Drainage Areas. Also, in PITANGUI (Gold), BRAZILIANS, SANTA BARBARAS, and FRON-TINOS.

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GREENFIELDS, WREXHAM.

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Reports from £3 3s., and expenses.

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Gold, Silver, Lead, Copper, and Tin Mines and Collieries, supplied with
Machinery, Plant, Materials, and Steres of every description. Prices on application.

JUL

Registration of New Companies.

The following joint stock companies have been duly registered: The following joint stock companies have been duly registered:—
THE JAMAICA TOBACCO PLANTATIONS COMPANY (Limited).—
Capital 100,000*l*., in shares of 1*l*. To acquire lands, plantations, wharves, &c., and to grow and prepare for sale all descriptions of tobacco, coffee, logwood, &c. The subscribers (who take one share each) are—W. D. Sharp, 10, Eastlake-road; T. K. Bellis, Croydon; A. Bebsouth, 59, East India-road; G. F. Ehrenzeller, 7, Canonbury Park; F. Williams, 72, Jeffrey Square; G. Unger, 10, Draper's Gardens; J. Mason, 61, Gresham House.

BELL AND BLACK MATCH COMPANY (Limited).—Capital 500,0007

dens; J. Mason, 61, Gresham House.

Bell and Black Match Company (Limited).—Capital 500,000l., in shares of 5l. To purchase and continue an established business at Manchester, Glasgow, London, and York. The subscribers (who take one share each) are—G. Bartholomew, Stratford; H. G. Barton, York; E. Dixon, Manchester; J. J. Lary, Glasgow; W. Williams, Birmingham; J. Wilkinson, York; J. A. Elliott, Manchester.

The Providence Gold Mines (Limited).—Capital 300,000l., in places of M. To purchase on a theory of a contraction of the contraction o

Birmingham; J. Wilkinson, York; J. A. Elliott, Manchester.

The Providence Gold Mines (Limited).—Capital 300,000l., in shares of 1l. To purchase or otherwise acquire a mineral property and mines known as The Providence and South Extension Gold and Silver Mines, situate in the United States of America, and the rights, privileges, powers, and appurtenances belonging thereto, according to the terms of an agreement made between W. S. Chapman on the one part, and P. H. Bailey as a trustee. To explore, work, and develope the mineral resources of these or any other mines that may come into the possession of the company. The subscribers (who take 100 shares each) are—W. Dunn, Blackheath, gentleman; E. Harris, 110, Cannon-street, merchant; W. H. Holyland, Hurstpierpoint, gentleman; F. M. Lyte, Putney, engineer; A. W. Ray, Brixton, Lieut. Col.; G. A. Batchelor, 18, Collingham Place, merchant; W. Leeming, Liverpool, gentleman. A majority of the subscribers will appoint the first directors, the number at any time must not exceed nine or be less than three, qualification 100 shares.

THE HYDRONE COMPANY (Limited).—Capital 50,000l., in shares of 1l. To manufacture and dispose of hydrone and other compositions. The subscribers (who take one share each) are J. C. Ker, 6, Astwood-road; L. M. Powis, 23, Powis-square; M. B. Rochfort, East Dulwich; J. Lynch, 20, Dancoille-road; B. G. Biggs, 2, East India Avenue; P. Pritchard, 100, Cloudesley-road; S. B. Tucker, 85, Grace-church-street.

The Cappe Electric Light and Telephone Company (Li-

church-street.

Avenue; P. Pritchard, 100, Cloudesley-road; S. B. Tucker, 85, Grace-church-street.

The Cape Electric Light and Telephone Company (Limited).—Capital 50,000l., in shares of 5l. To carry on the business of electric and telephone engineers, contractors, merchants, manufacturers, and traders in all kinds of apparatus. The subscribers (who take one share each) are—A. J. Macdonald, 2, Suffolk-lane; J. Macdonald, 3, Lombard-street; G. F. Smith, 86, Cannon-street; G. B. Hamilton, 2, Cushion-court; B. W. Lloyd, Carshalton; T. J. Plenman, 3 Leyham Gardens; J. E. Vardy, 33, Nicholas-lane.

Tymawr Rhondd Colliery Company (Limited).—Capital 10,000l., in shares of 100l. To adopt and carry into effect an agreement made between J. S. Batchelor, J. Richards, and J. Williams, of the one part, and this company of the other. To search for, get, work, raise, buy, sell, and deal in coal, ironstone, brickearth, and other minerals, metals, and substances, and to manufacture and sell patent fuel, bricks, coke, and other products of minerals and substances whatever. The subscribers are—J. Richards, Penarth, builders, 30; J. Williams, Newton Nottage, colliery proprietor, 30; J. Kirk, Brecon, colliery proprietor, 1; J. S. Batchelor, Penarth, timber agent, 30; W. H. Lewis, Cardiff, solicitor, 1; W. Morgan, Cardiff, agent, 1; J. Richards, Penarth, postmaster, 1. The number of directors not to be less than three or more than five.

The London United House Property Investment Association (Limited).—Capital 500,000l., in shares of 20l. To acquire house property, buildings, lands, &c., to let, sell, or otherwise dispose of same. The subscribers are—G. H. Bechford, Wandsworth, 100; F. R. Pollock, 12, Cambridge-square, 50; H. Montague, 31, Queen's Gardens, 50; R. Churchill, Barnes, 50; E. C. Haynes, 9, Newsquare, 50; R. Fleming, Bournemouth, 25: J. Bull, 25, Old Jewry, 25. The Vienna General Company (Limited).—Capital 250,000l., in shares of 10l. To acquire, carry on, and extend an

square, 50; R. Fleming, Bournemouth, 25: J. Bull, 25, Old Jewry, 25.

The Vienna General Omnibus Company (Limited).—Capital 250,000l., in shares of 10l. To acquire, carry on, and extend an omnibus business established in that city. The subscribers are—A. G. Church, Upper Clapton, 50; F. M. Beresford, Kennington, 50; E. Morrison, Lee, 50; B. G. Hall, 11, Avenue-road, 50; H. Laver, 11, Pembridge Gardens, 50; J. Pound, 81, Leadenhall-street, 50; R. J. Kingham, 9, Tufnell Park-road, 10.

The United Agencies (Limited).—Capital 20,000l., in shares of 50l. To carry on the business of agents, commission agents, general merchants, &c. The subscribers are—Z. G. Steens, Holland, 5; A. Kaupe, Stoke Newington, 4; C. Gravemann, Wettor, 2; J. Jonas, Sheffield, 2; C. Margatter, Coombe Woods, 20; R. Kugel, Werdohl, 4; F. Gaus, Frankfort-on-Main, 3.

GILEBET AND RIVINGTON (Limited).—Capital 45,000l., in shares

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THE DARLINGTON DISTRICT JOINT-STOCK BANKING COMPANY becomes incorporated as a Limited Liability company.

THE UNITED COLLIERIES AND COAL TRADING COMPANY (Limited).—Capital 100,000L, in shares of 1L. To acquire interests in the veins, mines, or seams of coal or culm, with the brickworks connected therewith, known as the Aberdare Tower Graig and Dyffryn Merthyr Colliery, situate in Glamorganshire. The working and developing of the said collieries and brickworks, or any other property that may come from time to time into the possession of the company. The subscribers (who take 10 shares each) are—J. Cockerell, 8, New Broad-street, coal merchant; W. Mills, Brighton, stockbroker; T. Nicholson, Southampton, banker; M. Petrie, Hanover Lodge, lieut.-colonel; E. Lund, 1, Queen Victoria-street, merchant; E. W. Henry, 27, Belzise Crescent, insurance broker; T. Thornicroft, King's Cross Station, coal merchant. No articles are registered.

CHARLES TAYLOR AND BROTHERS (Limited).—Capital 80,000L, in sharps of 10L. To acquire and carry on a cotton spinners' business at Bolton. Lancashire. The subscribers (who take one share each)

CHARLES TAYLOR AND BROTHERS (Limited).—Capital 80,000%, in sharps of 10%. To acquire and carry on a cotton spinners' business at Bolton, Lancashire. The subscribers (who take one share each) are—M. Taylor, Bolton; T. Taylor, Bolton; W. Taylor, Bolton; J. Harewood, Bolton; J. F. Salmon, Bolton; B. Henry, Bolton; T. Harewood, Bolton.

THE BRITISH AND FOREIGN ADVERTISING COMPANY (Limited).—Capital 15,000%, in shares of 10%. To carry on the business of printing, publishing, and advertising in all its branches. The subscribers (who take one share each) are—H. E. Harper, 55, Tregunterroad; F. T. Claremont, Forest Hill; G. Heniselfe, 104, Fentimanroad; A. C. Harper, Addiscombe; F. B. Harper, Lee; H. E. Reid, Brockhurst, T. Morton Temple.

road; A. C. Harper, Addiscombe; F. B. Harper, Lee; H. E. Reid, Brocklurst; T. Morton, Temple.

WILLIAM SUGG AND COMPANY (Limited).—Capital 150,000l., in shares of 10l. To acquire the goodwill and business of a gas engineer, gas-burner manufacturer, and carry on the same. The subscribers are—W. Sugg, Vincent-street, 1000; H. L. Hammack, 59, Bishopsgate-street, 1; N. E. B. Garey, 60, Anerley Park, 100; A. Hersee, South Penge, 1; R. P. Spice, 21, Parliament-street, 50; D. W. Sugg, Vincent Works, 50; W. S. Brown, Wandsworth, 5; R. Pierson, Wandsworth, 5; J. Coppen, Ashford, 100.

THE ELSWICK COAL COMPANY (Limited).—Capital 57,200l., in shares of 65l. To carry on the trades of colliery owners, coke manufacturers, fire-clay proprietors, and manufacturers of fire-clay goods, and to adopt and carry into effect an agreement made between W.

and to adopt and carry into effect an agreement made between W. C. Carr, J. B. Simpson, and T. H. Cox of the one part, and R. Pybus, junior, on behalf of the company. The subscribers (who take one share each) are—J. Strachau, Newcastle-on-Tyne, actuary; H. Strachan, Newcastle-on-Tyne, shipbroker; J. B. Simpson, Blaydon-on-Tyne, M.E.; R. Simpson, Ryton-on-Tyne, M.E.; J. H. Cox, Sunderland, gas manager; M. F. Gibson, Newcastle-on-Tyne, solicitor; J. Simpson, Hewkorth M. E.

cious stones, coals, ores, earths, and other substances, and extract, purify, work, cut, polish, buy, and sell diamonds, &c. The subscribers (who take one share each) are—G. F. Smith, 86, Cannon-street, merchant; J. Jackson, 4, Stanhope-street, esquire; W. Holmes, 20, Threadneedle-street, solicitor; S. W. Paddon, Redhill, merchant; T. Lewis, 104, Hatton Garden, diamond merchant; R. W. H. Giddy, 6, Kensington Gardens-square, esquire; G. B. Hamilton, 2, Cushion-court, stockbroker. The first directors are the following:—Sir H. Berkher, Mosers Smith Jackson, Paddon, and F. Hortz, evalified. court, stockbroker. The first directors are the following:—Sir H. Barkley, Messrs. Smith, Jackson, Paddon, and F. Hertz; qualification 100 shares.

THE SOUTHPORT AND WEST LANCASHIRE BANKING COMPANY THE SOUTHPORT AND WEST LANCASHIRE BANKING COMPANY (Limited).—Capital 440,0004., in shares of 51. To carry on a banking business in all branches. The subscribers are: S. Boothroyd, Southport, 1000; W. Smith, Southport, 1000; B. Cheetham, Southport, 100; J. Unwin, Southport, 100; R. Nicholson, Southport, 150; E. Iddon, Southport, 200; T. Fisher, Southport, 50.

THE WEST RIDING UNION BANKING COMPANY becomes incorporated as a Limited Limited company.

The West Riding Union Banking Company becomes incorporated as a Limited Limited company.

Robert Jones (Limited).—Capital 7000l., in shares of 25l. To acquire and carry on a business of art metal workers, established at Cheetham, county of Lancaster. The subscribers (who take one share each) are—T. Davies, Manchester; G. Watts, Manchester; S. Brammont, Manchester; E. Lomas, Cheetham; R. Jones, Manchester; J. O. Evans, Manchester; J. Hyde, Manchester.

DOVESTON, DAVEY, HULL, AND CO. (Limited).—Capital 15,000l., in shares of 10l. To acquire and carry on in Manchester a cabinet maker's and upholsterer's business. The subscribers (who take one share each) are—J. Sewell, Manchester; W. Wadsworth, Manchester; W. Benson, Manchester; W. Davey, Dorking; T. A. Hall, Manchester; W. Wilson, jun., Manchester; G. Falconer, Hulme.

THE INDIAN GOLD MINES.

THE WYNAAD AND MYSORE GOLD FIELDS COMPARED.

The numerous British capitalists interested in Indian gold mines will appreciate the comparison of the two districts made by a Wynaad Engineer, in the Times of India. He remarks that, perhaps beyond the fact of their each possessing gold reefs, the districts have no features in common. Their characters, both above ground and below are entirely unlike. The Wynaad delights the eye with its magnificent mountain and sylvan scenery; Kolar offends the eye by its dreary treeless flatness. The Wynaad is dotted everywhere with picturesque bungalows and homesteads—enticing spots for permanent and peaceful residence; Kolar presents to view a few clusters of hideous huts, forming the camp. The Wynaad has no indigenous inhabitants, beyond a few half-wild tribes; Kolar has its orthodox walled villages and its ryot cultivators. The Wynaad has no railway, while Kolar has. One might trace matters down to the absurdest details, and still find the same sort of opposition. Such a process might afford half an hours pastime; but the comparison becomes one of importance if we have under consideration the larger features of the two districts. It becomes of importance as indicating the different characters of the mining operations in The numerous British capitalists interested in Indian gold mines as indicating the different characters of the mining operations in the two mining fields.

From the difference is the difference in the difference in the difference is the difference in the di

the two mining fields.

From the difference in the merely physical aspect of the two countries he deduces a most important difference in the methods of mining; for whereas in the Wynaad the mountainous and hilly nature of the country reduces very considerably the necessity of pumping in the mines, and of hauling the material out of shafts; in Kolar the marked flatness of the place, broken by only one or two low ranges of hills, renders both these expensive operations necessary in their most unqualified form. Kolar has no wood, whether for timber or fuel, so that this would have to be brought by railway. There is a good deal of building stone about the place, however, and it would probably be useful to save much of the imhowever, and it would probably be useful to save much of the importation of timber by using masonry for the shafts and galleries. And this plan specially recommends itself on account of the security of masonry against the ravages of white ants. The geological features of Kolar, again, are different from those of the Wynaad. In the latter the rocks are composed of gneiss; the mountains of an exceedingly hard highly metamorphic rapies almost like a very fine.

features of Kolar, again, are different from those of the Wynaad. In the latter the rocks are composed of gneiss; the mountains of an exceedingly hard highly metamorphic gneiss, almost like a very fine granite; and the plateau of a softer gneiss, in various stages of decomposition; it is in the latter that the workable reefs occur. In Kolar the hills, where there are any, are composed of a curiously hardened rock, as hard almost as flint; and the rocks in the flat land, where the true reefs occur, are of blue and grey state, changing on the west into schist, and finally into granite, in which latter all trace of gold is lost; the field is intersected with a few walls and dykes of trap rock. So far as this is concerned these are no advantages or disadvantages in the one district over the other.

But since the ground about Kolar is not broken up and disturbed, as in the Wynaad, it is obvious that prospecting operations, and in some cases the operations of mining proper, can be carried on in the one more easily than in the other. The reefs of Kolar strike in a northerly and north-westerly direction; which is the usual direction for productive veins and reefs throughout the world. Many of the reefs are wonderfully distinct, and some can be traced by a superficial glance of the eye for a length of over half-a-mile. Perhaps they are more persistent here than in the Wynaad, but this is not easy to decide, owing to the hilly and disturbed condition of the latter district. They do not appear to be more numerous. The character of the quartz is distinctly different from that of Wynaad, having generally a bluish tinge, with a waxy or milky appearance. It is free from pyrites, a point which is greatly in its favour, and simplifies considerably the process necessary to extract the gold from it. In some places it is undoubtly rich in gold; piece after piece can be taken up showing the metal visible. The experimental crushing at the Ooregum Works was sufficient to prove that it is sometimes of good quality; and if further proo case in all their mining operations of whatever kind throughout India; they do not understand the timbering of shafts and galleries, the result being that their workings soon fall in. Sometimes fatal accidents occur, and the people, thinking the place cursed by a devil, give it up. It is astonishing, however, to what extent they have mined formerly in Kolar. In one place it has been found that they have gone to a depth of over 70 fts., and in another place they have quarried along the length of a hill for nearly a quarter of a mile; and in another they have driven a gallery an unknown distance, it being now impenetrable beyond a certain point owing to foul air and snakes. The entrance to this gallery has been worked into a large cave.

rge cave.
On the east side of the gold field the women frequently wash in
the streams for gold until they have got sufficient to satisfy them, when they take it for sale to the nearest bazaar, and buy what they want with the money. Many might make what for them would be respectable fortunes did they care to do so, but indolence prevents them. It is curious to see how indifferent the people are to the matter. On the west side of the gold field, where the people live on the granite country, it is impossible to find one woman who understands washing for gold, although the gold-bearing rocks are only a

few minutes walk from them.

This leads to the consideration of the question of labour. So far as that is concerned Kolar has a considerable advantage over the Wynaad; it possesses indigenous labour; indeed, Mysore is the district from which the Wynaad draws most of its supply. One would have imagined that the sudden demand for an increased labour supply caused by the appearance of the gold industry would have resulted in a rise and to adopt and carry into effect an agreement made between W. Carr, J. B. Simpson, and T. H. Cox of the one part, and R. Pybus, junior, on behalf of the company. The subscribers (who take one share each) are — J. Strachan, Newcastle-on-Tyne, actuary; H. Strachan, Newcastle-on-Tyne, shipbroker; J. B. Simpson, Blaydon-on-Tyne, M.E.; B. Simpson, Blaydon-on-Tyne, M.E.; B. Simpson, Blaydon-on-Tyne, M.E.; B. Simpson, Ryton-on-Tyne, solicitor; Simpson, Heworth, M.E. — The Anglo-African Diamond Mining Company (Limited).— Capital 650,000L, in shares of 10L and 1L. To acquire by purchase or otherwise 111 claims in Du Toits Pan Mine, situate in Griqualand West, together with the plant, machinery, and effects. To open and work the mines, raise, dig, and quarry for diamonds, and other pre-

management.

The concern should be placed in the hands of a competent and certified engineer; not in the hands of what they are pleased to call "practical men," nor in the hands of an adventurer. There are mining engineers of old standing who have had the necessary training and education, and the subsequent experience required. Unfortunately, these are not as plentiful as they should be, owing to the fact that England never thought of training her miners until 25 years ago, but they are beginning more plentiful every day. We are seen, but they are beginning more plentiful every day. fortunately, these are not as plentiful as they should be, owing to the fact that England never thought of training her miners until 25 years ago; but they are becoming more plentiful every day. With reference to this matter, it is worth observing that Germany, which carries on its mining according to fixed principles and by trained men, makes it on the whole profitable as a speculation. Whereas England, which carries on its mining according to no principles, and by "practical men" and adventurers, makes its mining speculations, taken together, losing concerns. Another mistake that is very likely to be made, owing to the general outcry for returns, is hurried working and imperfectly conceived plans. No greater mistake could be made. The directors are not entitled in promising, the public ought to know that they are not justified in asking for quick returns. It is just as absurd to expect a large gold mining company to pay dividends the first or second year, as to expect a railway company to do the same. If these and other precautions which will present them selves to careful companies are observed the chances of failure will be reduced as near to the minimum as they can be. But those who spend fabulous sums of money in purchasing what they know nothing about must naturally expect to tremble in their shoes during the time they have to wait until the value of the object of their purchaze has been proved.

COAL MINING PLANT.—A carefully and thoughtfully executed series of working drawing of coal mining plant has just been completed and published by Mr. J. POVEY-HARPER, M.E., of Derby, consulting engineer to the New York and Acadia Coal Company, and mineral agent to the Coalbrookdale Company. The series embraces three sheets showing the general arrangement of a colliery plant, range of colliery workshops, cast-iron tubbing, set of lifting pumps, details of pumps, hydraulic pumping machinery, shear legs, head stocks, round rope drum and pulley wheel, winding-engines and foundations, sections and elevations of foundations, double-flued boilers and seatings, chimney stack, double cages in a 16 ft. shaft, and wagons, landing props, pit-wagons, revolving coal-tipping machine for screens, coal screens, coke ovens, ventilating fans, main and tail rope hauling engines, foundations, and jenny arrangement for inclined planes, engine-house and foundations for underground hauling engines, endless rope haulage, ditto with sketches of clips, and plans of coal workings by pillar and stall, double stall, and longwall. The work is of the utmost possible utility to students and mine-manager, and for those undertaking to open out new collieries, whether in this country or abroad no more complete guide could be desired.

GAS AND WATER COMPANIES DIRECTORY AND STATISTICS—

GAS AND WATER COMPANIES DIRECTORY AND STATISTICS. The fifth annual issue of the Gas and Water Companies Directory—that for 1881—edited by Mr. Charles W. Hastings, has just been issued, and the fact that upwards of 2500 corrections have been made affords double evidence of the care with which the work is edited, and of the necessity for consulting the newest editions when the officers of the companies have to be communicated with, or when it is desired to obtain any other forts, concerning them. is desired to obtain any other facts concerning them. The detail given include the name of the town and county in which it is situated, date of formation, Act under which it is formed, capital, name ated, date of formation, Act under which it is formed, capital, name of chairman, engineer, or manager, secretary, lessee, owner or corporation, population, distance from London, and railway upon which the town is situated. The work has an excellent general index, the utility of which is obvious. The third issue of Gas Works Statistics, by the same editor, which accompanies the work just meationed, give the tons of coal carbonised, make of gas, illuminating power, price per 1000 cubic feet, price paid for public lamps, and amount of dividend. This year Mr. Hastings also issues, for the first time, a little volume of Waterworks Statistics, giving the source of supply, if gas vitation or pumping, quantity raised per annum, whether the chares vitation or pumping, quantity raised per annum, whether the charge are on assessment or by meter, number of meters in use, whether constant service, and amount of dividend. As the returns are in all cases obtained from the engineers and secretaries they are, of course they are the returns are in all cases of the returns are in all cases obtained from the engineers and secretaries they are, of course they are the returns are in all cases obtained from the engineers and secretaries they are, of course they are the returns are in all cases. thoroughly reliable.

CASSELL'S PUBLICATIONS.—Science for All, part 44, contains articles on a gnat, by Arthur Hammond; on heat power, by W. D. Scott-Moncrieff; on hearing, by Prof. T. J. Parker; on a fruit, by Dr. Robert Brown; on cooling, by W. Durham; and on a mussel, by Dr. Andrew Wilson. The History of Protestantism, part 25, contains the first portion of the History of Protestantism in the Netherlands Knights Dictionary of Mechanics, part 55, extends from Planing machine to Polariscope. The several articles, &c., are of the usual interesting and attractive character.

machine to Folariscope. The several articles, aco, are of the leasure interesting and attractive character.

Letts's Popular Atlas.—Under this title, Messrs. Letts, Son, and Co., of King William Street, have published unquestionably the best series of cheap maps yet issued. The maps show ocean depths ocean currents, and the leading physical features of each country—the volcances of the West Indies and South America, the forest, prairies, and treeless plains of South America, Canada, and Norway, and the glaciers of Switzerland and Norway being prominently shown. The Atlas will be particularly valuable to commercial menters from the care that has been taken to indicate the wine districts of France, Germany, Austria, Spain, Portugal, and Italy; the wool districts of Australia; the grain districts of Canada and Russia; the gold and diamond districts of South Africa; the tea districts and treaty ports of China, and so on. But the most characteristic geographical feature of the Atlas, distinguishing it from any hitherto published, is the insertion of maps of England, Ireland, or the British Isles, on the same scale, so as to convey through the syea correct impression of the size of the country delineated. There is an index of 74 pages, five columns in a page, containing about 23,000 names of places, with the country in which they are found, and their latitude and longitude. A more useful and complete alls could scarcely be desired, whilst its compactness and extreme legibility (it occupies no more space than a few quires of foolscap) make it equally well adapted for school, business, or home purposes.

RYLAND'S DIRECTORY.—The frequent application by inventor

RYLAND'S DIRECTORY.—The frequent application by inventor manufacturers, and other men of business for the names and the addresses of the principals of collieries, mines, or industrial establishments connected with metallurgy, is sufficient evidence that a work of the character of Ryland's Directory supplies a want, and when it stated that it appears to be thoroughly accurate and reliable, it will be generally appreciated. From the summary given it appears that the work contains full reference to 725 brands and trade marks; 203 blast furnace works; 289 works making manufactured iron. 203 blast furnace works; 289 works making manufactured iron 156 crucible steel works; 51 Bessemer and Siemens' steel works 82 tin plate works; 51 works producing Bessemer and Siemens' steel works. 82 tin plate works; 51 works producing Bessemer and hematite pi iron; 12 works producing cold blast pig iron; 176 works producing mine, part mine, and cinder pig iron; 181 makers of bar iron; 18 makers of angle iron; 38 makers of horse shoe iron; 22 nail makers; 76 plate makers; 39 iron rail makers; 16 steel rail makers 57 section iron makers; 86 sheet iron makers; and 44 T-iron makers. The utility of these details cannot be doubted for not a call with 57 section iron makers; 86 sheet iron makers; and 44 T-iron maker. The utility of these details cannot be doubted, for not only will they enable either purchasers or sellers to communicate with facility with the works of a particular district, or by referring to several ascertain with which it is most advantageous to do business, but they will enable him to see that he has really received the brand he has gained for. There is a handsome map showing the position of the ironworks, ironstone mines, and coal measures, whilst on 12 smaller railway maps are given the localities where the numberless ironstone mines are situated. The pig and finished ironstone mines are situated. The pig and finished ironstone mines are situated.

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YUBA RIVER GOLD-WASHING COMPANY, LIMITED,

CALIFORNIA.

Incorporated with limited liability by Shares, under the Companies Acts, 1862-1880, whereby the liability of each Shareholder is limited to the amount of his Shares.

CAPITAL £140,000, IN 140,000 SHARES OF £1 EACH.

74,000 fully paid-up shares will be allotted under contracts to and among the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited), in part payment for the properties of these companies.

2s. 6d. per share payable on application, 5s. on allotment, and the balance as required, at not less than one month's notice.

JOHN IRVING COURTENAY, Esq. REGINALD BIRD, Esq., M.A. JAMES EDGAR BOWE, Esq. GEORGE WILLIAM DIXON, Esq.

DIRECTORS.

Directors of both the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited).

TUFNELL SOUTHGATE, Esq., Chairman of the Roman Gravels Mining Company (Limited). HENRY WILSON, Esq., Director of the Tankerville Great Consols (Limited).

PETER WATSON, Esq., Chairman and Managing Director of the Devon Great Consols Company, and Director of the Great Laxey Company (Limited)—London Manager.

BANKERS.

Messrs. PRESCOTT, CAVE, BUXTON, LODER, and Co., Threadneedle Street.

SOLICITORS.

Messrs. RENSHAW, 2, Suffolk Lane, Cannon Street, E.C.

BROKERS.

Messrs. MARSHALL and HULBERT, 18, Finch Lane, London, E.C.

SECRETARY.

Mr. W. J. LAVINGTON.

OFFICES-14A, AUSTIN FRIARS, E.C.

The object for which this company has been formed is to acquire and work, as going concerns, as from the 30th of June, 1881, the penses and the necessary charges for interest on debentures and the recessary charges for interest on debentures and of 200 acres, and their storage capacity can be largely increased. The fall Creek Company has, out of the profits earned by the sale of perty.

A new tunnel of large size is nearly completed to the face of the South Yuba bank (only 340 ft. remaining to be driven), through the remaining to be driven, through the Plan Text and EMP Creek Company has no debenture debt. and work, as going concerns, as from the 30th of June, 1881, the properties and businesses of the two companies known respectively as the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited), hereinafter called the Blue Tent and Fall Creek Companies.

I .- THE BLUE TENT COMPANY.

aqueducts.

Taking the area of the auriferous alluvium at 400 acres, and the

thickness at only 225 ft., the gold contents of this property, based on the average yield of the last three years from the gravel of the South Yuba bank, reaches the high figure of £3,700,000 sterling. South Yuba bank, reaches the high figure of £3,700,000 sterning. The cost of getting the gold should not exceed 45 per cent. of the

It may here be observed that the quantity of gold as yet untouched in the auriferous gravel beds of California is enormous. Further information on this subject, and a description of the process by which the gold is washed from the gravel, will be found in the Edinburgh Perior for Lapson, 1879.

Review for January, 1879.

The business of the company consists in the washing down, with water brought by the canals and aqueducts, the banks of gravel tough troughs or tunnels in which the gold is caught. This opera-in is conducted on a vast scale, and is certainly free from the ordiy mining risks.

The company has been engaged since the latter part of 1873 in building canals and reservoirs, and in developing the property bailding canals and reservoirs, and in developing the property

| The canal is eight miles in length, and brings water from the com| The canal is eight miles in length, and brings water from the com| The canal is eight miles in length, and brings water from the com| pany's lakes to the head of the Blue Tent Company's canal on the
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| Pany's lakes to the head of the Blue Tent Company's canal on the

A new tunnel of large size is nearly completed to the face of the South Yuba bank (only 340 ft. remaining to be driven), through which the rich bottom gravel in the centre of the property will be washed off. The property will then be in full working order.

In addition to the water from its own canal and the Fall Creek

This company owns one of the largest and most valuable of the gold-bearing gravel beds of California. The property consists of (1.) 490 acres of gold-bearing gravel, of an average thickness of 400 ft., situated within one hour's drive to the north-east of Nevada City, Nevada County, California; and (2.) A valuable Water-right, a Canal 31 miles in length, of the capacity of 25,000,000 gallons per diem during the water season (a quantity about equal to that carried by the largest of the Metropolitan Water Companies), and two smaller aqueducts.

In addition to the water from its own canal and the Fall Creek Lakes a further supply is procured from another water company, so that on the completion of the tunnel the company will rank in the production of gold amongst the very largest of similar undertakings, such, for instance, as the North Bloomfield Gravel Mining Company, an American Corporation, whose report, dated January, 1880, shows constitute the company will rank in the production of gold amongst the very largest of similar undertakings, and American Corporation, whose report, dated January, 1880, shows constitute the company will rank in the production of gold amongst the very largest of similar undertakings, and American Corporation, whose report, dated January, 1880, shows constitute the company will rank in the production of gold amongst the very largest of similar undertakings, and American Corporation, whose report, dated January, 1880, shows constitute the company will rank in the production of gold amongst the very largest of similar undertakings, and American Corporation, whose report, dated January, 1880, shows constitute the company will rank in the production of gold amongst the very largest of similar undertakings, and the fall Creek Lakes a further supply is procured from another water company in the company and the company will rank in the production of gold amongst the very largest of similar undertakings, and the company and another water company and a step profit for instance, as the North Bl

Tent gravel is of a richer description the same volume of water should produce even better results.

Mr. Thomas Price, of San Francisco, a leading mining expert in California and the agent of the company, has valued the property of the Blue Tent Company as a whole, on completion of the tunnel, at

The debenture debt of the Blue Tent Company of £57,100 will be adopted by the present company. £10,000 of this which falls due January 1st, 1882, it is at present proposed to pay off at maturity. The remaining £47,100 is not due until May 1st, 1885, before which time it is anticipated that by reason of the increasing yield and value of the monator the debourger are he wild off a represent on terms. of the property, the debentures can be paid off or renewed on terms more favourable to the company than those of the existing de

II .- THE FALL CREEK COMPANY.

This company owns a canal, seven lakes, and a saw-mill. The lakes are situated in Nevada County, in the mountain range which forms part of the water-shed of the South Yuba River.

The canal is eight miles in length, and brings water from the company's lakes to the head of the Blue Tent Company's canal on the

Mr. Thomas Price reports that on completion of the new tunnel and lake improvements the joint properties of these two companies will be of the value of £214,000, and will be capable of carning a profit of not less than \$136,000, or say £27,750 per annum, the whole of which will be applicable to dividends, after payment of the debenture interest, £4710. In other words, the estimated profits will be equal to a dividend of 15 per cent. on the capital of the company

This estimate of profits is confirmed by Mr. James Edgar Bowe, a director of the Blue Tent and Fall Creek Companies, at present in California, and Mr. Geo. S. Powers, the resident superintendent, a

California, and Mr. Geo. S. Powers, the resident superintential agentleman of great experience in this description of property.

Of the capital of the Blue Tent and Fall Creek Companies £153,794 in the aggregate has been issued and paid up, and the total purchase money for which they agree to sell their properties and businesses to the company is £74,000 in fully paid up shares of £1 each, and £36,000 in cash, making together £110,000. Such purchase money was fixed by the vendors, the Blue Tent and Fall Creek Companies represents in groups agreed meeting.

was fixed by the vendors, the Blue Tent and Fall Creek Companies respectively in general meeting.

The only contracts entered into by or on behalf of the company are two contracts, both dated the 17th day of June, 1881, the one made between the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), of the one part, and Holland Dell of the other part; and the other made between the Fall Creek Lakes Water Company (Limited) of the one part, and the said Holland Dell of the other part.

e other part.

If no allotment is made the deposit will be returned in full. Copies of the above contracts, together with Reports, Maps, and photographic views of the properties, and the Memorandum and Articles of Association, can be seen at the offices of the company.

Prospectuses and Forms of Application for Shares can be obtained at the offices of the company, or at the Brokers or Bankers.

PRACTICAL GEOLOGICAL INVESTIGATION-No. III.

THE GLACIAL ORIGIN OF THE NORTH AMERICAN LAKES REFUTED.

The watershed between the present drainage system of the Grand river and Dundas valleys is at only a short distance south-west of Copetown, and the distance in the direction from the Fairchilds to the Dundas side of this divide is less than seven miles, with an average altitude of less than 480 feet. The highest point of which Prof. Spencer has taken the altitude is 492 feet above Lake Ontario. The country gradually descends from the divide to Fairchilds Creek, which as it crosses the Brantford and Harrisburg Railway is 407 feet above the lake. It is considerably lower where it enters the Grand river. The region between the divide and the Grand river is traversed from north-west to south-east by a considerable number of streams, all with relatively large valleys cut in the drift, since the present system of drainage was inaugurated in post-glacial times. On examination it may be seen that the country is too high to permit Falrchild's creek or Grand river, as they are at present situated, flow over the height of land into the upper portion of Dundas valley. The Niagara limestone forms the summit of the escarpment at Ancaster, but westward thereof limestones are nowhere to be found; The watershed between the present drainage system of the Grand Ancaster, but westward thereof limestones are nowhere to be found; the country is only covered with drift. Going on westward it is found that the streams have not cut to an equal depth, but still run

the country is only covered with drift. Going on westward it is found that the streams have not cut to an equal depth, but still run deeply through the drift.

Eventually we reach the divide, after which we find that other systems of streams also cut deeply in the drift running in a southeasterly direction to join the Grand river; but the Niagara limestone is absent from a considerable extent of country. On the northern side of the Dundas valley the escarpment after reacting Copetown is buried by the drift. Although the line of buried cliffs recedes somewhat to the northward of the Great Western Railway, yet there are occasional exposures, as at Troy and other places in Beverley and Flamboro', where the underlying limestones come to the surface. At Harrisburg the limestones are known to be absent for a depth of more than 72 feet, as shown by a deep well in the drift. In fact if we draw a line from Dundas to the northward of Harrisburg (a mile or two), and another from Ancaster southward to the Grand river, we have two limits of a region where the limestone floor has been cut away from an otherwise generally level region. The southern side of this area is the southern margin of the Grand river valley, between Seneca and Brantford, and the western boundary is composed of Onondaga rocks, cast of Paris, which perhaps forms an Island of rocks buried more or less in drift.

Referring to the topography and hydrography of Lakes Superior, Michigan, Huron, and St. Clair, Prof. Spencer carefully points out the most striking features. Lake Superior may be described as a large basin, with a level or gently undulating bottom and steep margins; the mean depth may be placed at 800 feet below its present surface. The depth of the lake at three or four miles from the shore is generally as great as in the centre; in fact it is often deeper near the shore on its north-western side. That this great plane is not covered with any great debth of drift deposit (except locally) appears evident on examining the character of the bottom of

and the few deeper holes to have been produced by some receding cascade from the adjacent shore, to which there appears to be a transverse deep channel south of the mouth of Gooseberry river.

Prof. Winchell calls attention to the depression in the low country between the Chocolate river (east of Marquette) and the Train bay (near the Pictured rocks) as the only place where there there could have been connection between the basins of Lake Superior and Michigen. Turning to Lake Michigan, Prof. Spencer remarks that it may be said to consist of a broad long plane, the northern half having a mean depth of 600 feet, whilst the soundings in the southern half are not much more than half that measurement. Throughout the whole length the lake appears to be traversed by a deep channel, and in the northern end by more than one. The conspicuous channels in the submerged plane extend far northward to near the end of the lake. An interesting sounding east of the mouth of the Manistique river shows a depth of 448 feet at two miles from the Manistique river shows a depth of 448 feet at two miles from the shore, whilst all the adjacent depths do not exceed 11 fathoms. This appears to be a continuation of the deep soundings 10 miles to the southward, but the surrounding lake bottom is covered with drift to a great depth wherever the Niagara limestones have been removed. It is more than probable that this great depth is in a rock-bound channel of an ancient water course, which elsewhere has been filled with drift. It seems probable that it was a portion of a buried channel extending through the valley of the Manistique lakes to the depression in the country to the south of Lake Superior, already alluded to, and formed a preglacial connection between the valleys of Lakes Superior and Michigan.

Green Bay is separated from Lake Michigan by a Niagara escarpment facing the westward, and rising 200 or 300 feet above the waters. There appear not to have been any closer connections be-

Green Bay is separated from Lake Michigan by a Niagara escarpment facing the westvard, and rising 200 or 300 feet above the waters. There appear not to have been any closer connections between thisse two basins at any previous time than at present, excepting when the waters were at a higher level. It has been stated that from Green Bay for 400 miles to the Mississippi river a broad low depression occurs in the country, and may have been a former outlet for Lake Superior. This valley is filled with drift, even if it ever had a sufficient depth. Since Prof. Spencer read his paper he has seen Gen. Warren's report on the Transportation route from the Mississippi river to Green Bay, via the Wisconsin and Fox rivers. This shows that the bottom of the valley just mentioned has a maximum height of 208-8 feet above Green Bay, and that Lake Winnebago, on Fox river, is 169 feet above the same water. This small lake discharges by the Fox river, which flows over hard limestones down a series of rapids. Therefore Green Bay never discharged its waters into the Mississippi river, and this depression in the country between the Great river and Lake Michigan (the Green Bay portion) was not a former outlet of Lake Superior, since it was within about 200 feet of the present level. This fact strengthens the probable correctness of the suggestion that Lake Superior emptied into the northern end of Lake Michigan directly. Also Green Bay has evidently the character of a fjord. The outlet of Lake Michigan could only have been by the low country along the Illinois river. Of the water basins of Lakes Huron and St. Clair four divisions can be made. The first section may be made to include the shallow basin south of a line drawn from Thunder Bay, or Presqu' Ile, to Kincardine, in Canada, and Lake St. Clair. The second basin comprises the deep channels of Lake Huron, and extends northward to the Manitoulin islands and the Huronian hills to the northward; and the fourth Georgian Bay proper. The first of these divisions is represented by shall bay, belonging to this section, is like Green Bay, shallow even at its mouth, where it is less than 100 ft. deep. Lake St. Clair is a flat plane, with its bed varying from 18 ft. to 21 ft. below its surface, and is altogether modern. All the obtainable evidence appears to show that the southern end of Lake Huron, and the western end of Lake Erie, with the intervening region, constituted one plane, underlyid by a considerable death. lake Erie, with the intervening region, considered one plane, underlaid by a considerable depth of Eran shales, reposing on the thick development of coniferous limestone, and traversed by deep channels running throughout it. The second Lake Huron division is that portion between the line drawn from Pesqu'lle to Kincardine, and the Manitoulin islands to the northward. It consists of a broad plane at an average depth of 75 fms. below the lake surface, traversed by several deep channels, those in the marginal portions of the lake argenerally were obscured by drift and sitt than

That the Dundas valley is that of an ancient river valley now,

buried to a great depth with the debris produced in the Ice age, becomes apparent on a careful study of the region under; but until the key of the mystery was discovered its origin was very obscure. Prof. Spencer's labours in studying this region may fairly be called the first systematic attempts at the solution of the present configurations of the western end of Lake Ontario and the adjacent valley. It had been asserted that it was scooped out by a glacier, but this wild hypothesis was only a statement made without any regard for facts. The topography of the lower lake regions precludes the idea of a glacier flowing down the valley to the north-eastward. Again, as the direction of the ice was towards the south-west, the waters from the melting glaciers could scarcely flow up an escarpment many from the melting glaciers could scarcely flow up an escarpment many hundreds of feet in height. Even if the Niagara escarpment did not exist elsewhere the non-parallelism of the striae and edges of the exist elsewhere the non-parallelism of the striae and edges of the escarpment with their angular summits is sufficient to prove the non-glacial origin of the valley in the hard limestone rocks. Moreover, at the eastern end of the narrower portion of the valley there are two concave curves, facing the lake, which of necessity would have been re noved if such a gigantic grinding agent had been moving up the valley. This glacier origin of the valley being an absolutely untenable hypothesis, Prof. Spencer sought for some fluviatile agent capable of effecting the present configuration of the region. At the time no idea occurred that even the great valley of the present is only a miserable remnant of one of gigantic proportions, obscured by hundreds of feet of drift. After a careful examination of the region and of the railway levels he came to the conclusion that this was an old buried valley, and it ultimately became apparent that Lake Erie had flowed by the Grand river, reversed to a point west or north-west of Seneca, and thence by the Dundas Valley into Lake Ontario; also that the upper waters of the Grand river, previously discovered as passing down the Dundas Valley, were really tributary to the outlet of Lake Erie, and joined it somewhere south of Harrisburg, and that the basin between the Brantford (and the Grand river of to-day) and the Great Western Railway at Copetown formed an expended lakelet along the general of the agents of the against outlet of Lake expense of the against outlet of Lake burg, and that the basin between the Brantiord (and the Grand river of to-day) and the Great Western Railway at Copetown formed an expanded lakelet along the course of the ancient outlet of Lake Erie, scooped out the softer rocks of the Onondaga formation already mentioned. As the waters excavated a bed in the deeper channel, of course this lakelet would become an expanded valley, such as we often see among the hills of drift at a short distance westward of Dundas ward of Dundas

The maps and sections by which Prof. Spencer's paper is illustrated render his descriptions and arguments particularly lucid. He has a good case, and he states it well. His views as to the origin of the Lower Great Lakes of the North American Continent are unquestionably more reasonable than the hypotheses which have hitherto been put forward. As to the notion that the lakes were excavated by elacions the chargest that one cannot do better then give a superport put forward. As to the notion that the lakes were excavated by glaciers he observes that one cannot do better than give a summary of what Prof. Whitney, in his Climatic Changes, says with regard to the erosive power of ice. Ice per se has no erosive power. Glaciers are not frozen to their beds. Ice permeated with water acts as a flexible body and can flow accordingly. In neither the extinct glacier regions of California nor in the shrunken glaciers of the Alps will it be found that ice scoops out channels with vertical sides as water does. No change of form can be observed at the former line of ice. Aside from the morainic accumulations there is nothing to prove the former existence of the clacier except the smooth former line of ice. Aside from the morainic accumulations there is nothing to prove the former existence of the glacier except the smooth polished or rounded surfaces of the rocks, which have no more to do with the general outline of the cross section of the valley than the marks of the cabinet-maker's sand-paper have to do with the shape and size of the article of furniture whose face he has gone over with that material. The most important work of a glacier is the scratching and grooving its surfaces. This may, however, be done by dry rubbing, so that isolated scratched stones, or patches, are no evidence. The underlying rock surfaces may lose their sharpness owing to contained detritus in the ice, and become rounded. The ground growing is neither characteristic nor important. There is put little. moraine is neither characteristic nor important. There is but little detrital material beneath Alpine glaciers, and this is the result of water more than ice. The branch of investigation which Professor There is but little Spencer has taken up is, beyond doubt, interesting and valuable, and he has certainly brought to light sufficient facts already to have an important bearing on the great controversy of the glacial drift, whilst every thoughtful reader will come to the conclusion that Professor Spencer is fully justified in affirming that the ultra-glacial theorists stand on uncertain grounds.

REAPPLYING SPENT STEAM IN STEAM-ENGINES.

A method of almost indefinitely using as motive power the spent steam of engines has been discovered by Mr. J. Belou, C.E., of Paris, and consists in causing such steam to pass successively through a greater or smaller number of injectors between the engine boiler and the driving cylinder, acted upon separately by currents of steam under pressure, overheated or not, and acting upon one another, joined head and tail in such a manner that the first current having sucked the spent steam, and having communicated to it a first degree of pressure, the second current in its turn sucks the product of the first, and imparts to it a second degree of pressure, and thus one after the other for the injectors following, until the product resulting from the mixture of the sucking steam with the steam sucked may have attained a sufficient pressure to be used as motive power by the engine. The final product of these successive concentrations is received in a chamber, whence part passes through the engine as motive power, and part through the injectors of the first degree to act as sucking steam. The surplus is sucked by a pump and returned to the boiler, or is condensed in the chamber, to pass from thence into the boiler by its own weight, if in this last case care has been taken to place the chamber above the level of the boiler, and to connect the two vessels by a plunging tube, so that a natural circulation between the two liquids is established by the only difference of the pressure, and the temperature between the two vessels and the last injector—that is, the one that is to furnish the highest degree of pressure, and is alone of fed directly by the steam from the boiler.

In practice the arrangement is said to work admirably. The spent is established by the steam from the boiler.

In practice the arrangement is said to work admirably. The spent is ture of the sucking steam and the steam scucked is received into a chamber apart from the boiler, from whence to pass and to be distributed as motive power, while the surplus is A method of almost indefinitely using as motive power the spent steam of engines has been discovered by Mr. J. Belou, C.E., of

the Manitoulin islands and the Huronian hills to the northward; and the fourth Georgian Bay proper. The first of these divisions is represented by shallow water, seldom 35 fms. deep, but with a channel of about 50 fms. depth running through it towards the direction of the north axle of the Ou Sable river, near Brewster's mills. Saginaw bay, belonging to this section, is like Green Bay, shallow even at its mouth, where it is less than 100 ft. deep. Lake St. Clair is a flat being to this section, is like Green Bay, shallow even at its mouth, where it is less than 100 ft. deep. Lake St. Clair is a flat being to this section, is like Green Bay, shallow even at its mouth, where it is less than 100 ft. deep. Lake St. Clair is a flat being the superflower steam from the injectors is allowed to reserve the injectors is a love of the engine. boiler the superfluous steam from the injectors is allowed to pass into the latter, and the differential pressure between the sucking steam and the steam sucked required for the working of the injectors is preserved. And, finally, to regulate the sucking of the injectors the spent steam from the engine is arranged to be received into a similar chamber, from whence to pass to the injectors.

SCIENTIFIC ENGLISH READER.—The first part of the valuable portion between the line drawn from Pesqu 'He to Kincardine, and the Manitoulin islands to the northward. It consists of a broad plane at an average depth of 75 fms. below the lake surface, traversed by several deep channels, those in the marginal portions of the lake are generally more obscured by drift and silt than towards the central waters. This portion of the tube is excavated out of the rocks of the various formations, from the Niagara to the conferous limestones, but most largely out of the more or less soft rocks of the Onondaga group. The North channel is generally in shallow water, the greatest depth being only 204 ft.; it may be considered as a broad continuation of the Spanish river to the westward. That the Dundas valley is that of an ancient river valley now. into intellible German. By this means comparative fluency is ac-

quired, without necessitating the learning of a large vocabulary seldom occurring words, and waste of time is altogether avoids Dr. Wershoven has done much to facilitate the enterchange of ide among the industrials of England and Germany, and his labour we be widely appreciated in both countries.

be widely appreciated in both countries.

MECHANICAL ENGINEERING.—A valuable addition has just be made to the well-known Weale's series (published by Messrs. Crost Lockwood and Co., of Stationers' Hall-court) by the issue of a Free tical Treatise on Mechanical Engineering, comprising metallure moulding, casting, forging, tools, workshop machinery, mechanic manipulation, manufacture of the steam-engine, by Mr. Franc Campin, C.E., of Leeds. The author explains that the present we is substantially an abridgment of his larger treatise on the same siject published some years since, but the text has been entirely partition, and the details have been corrected so as to correspond with the most approved modern practice. A quantity of description matter, for example, has been eliminated, and replaced by account of vacuum brakes and other modern appliances, and similar modications are observable throughout. The volume will prove of green practical utility to the mechanical engineering profession general and if carefully studied by apprentices and young workmen will a sist materially to make them masters of their business, and the confer lasting benefit upon themselves and on those employing the It is a very cheap half-crown's worth. It is a very cheap half-crown's worth.

SOUTH LANCASHIRE AMD CHESHIRE COALOWNERS' ASSOCIATION—The usual monthly meeting of members was held on Tuesday att Queen's Hotel, Manchester, Mr. Clarke, the President, occupying the chair. The chief matter under discussion was the announcement made last week, as reported in these columns, by Mr. Joseph Dickinson, Her Majesty's Chief Inspector of Mines, to the effect that the law officers of the Crown had given it as their opinion that seems to the Coal Mines Regulation Act, 1872, making it obligatory the persons ordinarily employed in the mine to be out of the mine when gunpowder was used, included the night shift, including labourers employed in making ready the mine for operations on the following day, and that this interpretation of the meaning of the second of the coal making ready the mine for operations on the following day, and that this interpretation of the meaning of the second of the second of the second of the second SOUTH LANCASHIRE AMD CHESHIRE COALOWNERS' ASSOCIATION ton would in future be enforced. In the discussion which ensurements expressed the opinion that certainly at the time when the content of the section was only intended to refer to the miners ordinarily employed in the mine and not total labourers engaged to attend to the ordinary safety of the mine. In definite resolution was come to with regard to the matter, but ast question is of considerable importance, and the strict carrying a of the section as laid down will seriously interfere with the works of some large collieries, the subject will no doubt be brought und further notice at a future meeting of the Association.

COLLIERY ACCIDENTS .- At the Stoke-on-Trent Police Court, on We colliery Accidents.—At the Stoke-on-Trent Police Court, on we needay, Mr. Edward Thompson, manager of the Whitfield Collier where an explosion of gas in February last killed 24 men, we charged with manslaughter—a coroner's jury having returned again him a verdict of culpable neglinence—and he was committed trial at the Stafford Assizes. The North Staffordshire Federalt Association of Miners have agreed to take proceedings under the Employers' Liability Act against the Chatterley Coal and Iron Coapany on behalf of the friends of the deceased men.

PORT IMPROVEMENTS.—His Majesty the King of the Belgiansh offered a prize of 25,000 frs. for the best essay on the subject of timprovement of ports situated on sandy shores. Mr. Lyster, en neer to the Mersey Docks and Harbour Board, has just received letter from M. G. Rolin Jacquemyns, Belgian Minister of the Interistating that as the question is international, His Majesty desires the jury to be composed of members belonging to different country. The King, therefore, authorised the Minister to ask Mr. Lyster, whether he would consent to be one of the jurors to adjudicate the essays.

MINING COMPANIES' DIRECTORS.—The Statist of to-day give list of directors of some sixty mining companies, showing in a diagram h frequently the same groups of directors act for various companies.—Statist 05 16, York-street, Covent Garden. Price 6d.

LEAD ORES.
Date. Mines. Tons. Price per ton. Purchasers.
June 27-Powell 20 £ 9 2 6 Walker, Parker
July 5-East Chiverton 50 13 0 0 Panther Lead (
-West Chiverton 60 9 7 6 Lansberg and C7-Roman Gravels
7—Roman Gravels 150 9 7 6 Walker, Parker
8-South Darren 50 14 2 6 Sheldon, Bush,
BLACK TIN.
Date. Mine. Tons. c. q. lb. Price p. ton. Amount
-Wheal Coates 8 5 1 24 £56 0 0 £463 6 0-Red
CORRER CORR
COPPER ORES.
Sampled June 22, and sold at Swansea, July 5.
Mines. Tons. Produce Price Mines. Tons. Produce.
Burnt Ore111 23/8 0 12 6 Virneberg 24 61/2
ditto129 21/4 0 12 6 Italian Ore 51 141/8
ditto 114 238 0 13 0 ditto 51 1438
Berehaven 75 736 4 3 0 Tan-y-Bwlch 27 2234
ditto 75 736 4 2 6 ditto 41 1234
ditto 72 734 4 1 0 Tigrony Pre. 8 3616
ditto 72 738 4 4 0 Cronebane 4 611/4
Virneberg 8 23 13 4 0 ditto 4 491/4
ditto 49 135% 8 4 0 West Assheton 7 1734
ditto 54 54 5 16 6
TOTAL PRODUCE.
Burnt Ore 354 £ 224 2 C Tan-y-Bwlch 68 £ 6
Berehaven 294 1214 12 6 Tigrony Precipt 8 1
Virneberg Ore 135 907 15 0 Cronebane Ore 8 2
Italian Ore 102 805 16 0 West Assheton 7
COMPANIES DE WHOM BUT ORDS WERE DEPOSITORE
COMPANIES BY WHOM THE ORES WERE PURCHASED. Names. Tops. Amount.
Copper Miners' Company
P. Grenfell and Sons
Vision and Sana
Vivian and Sons
Williams, Foster, and Co 406½ 1,526 7
Mason and Elkington
Landore Copper Company
Total
TOTALS AND AVERAGES.
21 cwts. Produce. Price. Per unit, Stand
Whole sale 976 81/4 £4 7 7 10s. 8d £79 1

COPPER ORES. Sampled June 22, and sold at Tabb's Hotel, Redruth, July 7.

Mines.	T	ons	3.	P	rice.		Mines.	To	ns.	Pri
Mellanear		80		£2		0	Mellanear	4	5	
ditto		79		2	15	6	West Tolgus	1	66	
ditto		76		3		0	ditto	!	52	3
ditto		75		2	13	6	ditto		15	5
ditto		73		3	8	0	East Pool		39	. 2
ditto		70		1	19	6	ditto			. 2
ditto		65	*****	1	19	6	South Crofty		33	. 3
ditto	*********	61		2	13	6	Olds' Precipitate		1	. 9
				TO	TAI		RODUCE.			
Mellanear	624						South Crofty	33	£	108
West Tolgus	163			817	13	6	Olds' Precipitate	1	*****	9
East Pool		***		168	15	0				
				O	20	-	01 4			
Average stand	lard					9	0 Average produce	02	7 6	000100

LAST SALE .- Average standard ... £94 16 0 | Average produce

Standard of corresponding sale last month,	£90 11 0	Pro	oduce	, 65	1
COMPANIES BY WHOM THE ORES W					
Name.	Tons,		Amou	int.	
Vivian and Sons					3
Grenfell and Sons	1871/2		811		- 6
Nevill, Druce, and Sons	182 1/2		488		9
Williams, Foster, and Co	224 1/2		700	19	0
Mason and Elkington	75		200	12	6
Total	893	£	3008	9	6

NO SALE on Thursday next, July 14.
Copper ores for sale on Thursday week, at the Boyal Hotel, Trurc parcels.—Devon Great Consels 808—Seuth Caradon 410—Gunnislak Valley 210—Glasgow Caradon 200—Bedford United 80—East Oreb 2171 tons.

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JULY

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The f 6 ft. in able mi 2nd. perty. 3rd. Callao sand po

chinery flows as sufficie 5th. large, i

last ye day (w ilberal

GREAT GOLD DISCOVERY IN VENEZUELA.

THE MILITARY CALLED OUT.

The following is from a private letter—it speaks for itself:—"You will be surprised and amused to hear that I had to call the military to my assistance to enable me to obtain possession of my property, 'New Callao.' When the engineer returned to the property he found it in the possession of a mob of excited diggers, who had made a rush there when the discovery was made, and so impressed were they of the great value of the place that they told my engineer that if he attempted to take possession they would shoot him. He accordingly had to return, and I was obliged to apply for an escort of soldiers to enable me to drive off the usurpers. This, at all events, shows that others besides ourselves are cognisant of the value of the property."

(FROM THE "COLONIES AND INDIA," 25TH JUNE, 1881.)

"Advices have recently been received of an extraordinary discovery of gold, both in quartz lodes and alluvial deposits, about 90 miles such of Ciudad Bolivar, in Venezuela. The locality was discovered by a well-known mining engineer some two years ago, when a great resh was made there by a crowd of native mining desperadoes, who threatened to shoot anyone who appeared on the spot; but the discoverer had to fly for his life, and not until a military escort was dispatched with him in March last was he able to take possession of any part of the property.

(FROM "LA FRANCE POPULAIRE," SATURDAY, JUNE 25TH, 1881.)

"Quite recently a new mine has been discovered which promises to surpass in its marvellous output the most remarkable of those hitherto discovered. . . . The soldiers appeared on the scene, and the concession was obtained by the rightful owner; but this deed speaks for itself, without any comment, and now Venezuela is more sought for than California by European emigrants, and we shall soon no doubt see a greater influx of prospecting miners than ever came to Callao, of happy memory."

THE "NEW CALLAO," LIMITED,

HAVE PURCHASED 250 ACRES OF THIS VALUABLE PROPERTY WITH THE OPTION OF PURCHASING THE REMAINING 750 ACRES.

The company are in possession of the title deeds, and the necessary machinery is being ordered.

Mr. Skertchly reports it contains no less than three lodes, averaging 5 to 6 ft. wide, with strong indications of four others—the average yield giving 2 to 2½ ozs, of gold to the ton.

£20,000 has been privately subscribed. The balance, £30,000, is now offered for the first time to the public for subscription, in order to procure a settlement and quotation on the London Stock Exchange.

Mr. Robotham, late Surveyor and Mining Captain of the "El Callao" asserts that the "New Callao" will prove a richer mine than the "El Callao," and he has accepted the managership.

The "El Callao," with an original capital of about £50,000, has paid in dividends during the last four years upwards of £150,000 per annum. Their shares, £154 paid, are quoted at £1500, and the last dividend was £100 per share.

The LIST of APPLICATIONS FOR SHARES will OPEN on WEDNESDAY, the 6th inst., and will CLOSE on TUESDAY, the 12th inst., for LONDON, and on WEDNESDAY, the 13th inst., for COUNTRY applications.

The "Potosi" Company, incorporated in London last December, with a capital of £350,000, is worth £550,000 at the present market quotations.

The "Fotost Company, incorporated in Fotost has become, which expended the present market quotations.

The "Los Frailes" have struck an extraordinary rich vein, and many others privately worked are making very large returns; without doubt, gold mining in Venezuela is only in its infancy,

His Excellency the Minister Plenipotentiary to the Court of St. James's and the Republic of France (Senor Don J. M. de Rojas) says.—"The success of the Callao Mine has led to the great development of gold mining in the district, and many other properties have been most successfully developed."

Callao," Limited,

NOW OFFERED FOR SUBSCRIPTION IN £1 SHARES, IS SITUATE TO THE WEST OF ABOVE-MENTIONED MINES.

Mr. J. A. Skertchly, F.R.G.S., in his report, says:—"It is therefore, highly probable that the yield will be even greater than that of the 'El Callao,' it being one of the parent ranges whence these lodes spring, and I have no hesitation in recommending it as one of the best mining prospects in the district."

Mr. ROBOTHAM, in his report, certified by the British Consul at Venezuela, says:—"At a depth of 25 ft. the shaft encountered a vein 5 ft. in thickness. . . . Several assays have been made with 2 to 2½ ozs. of gold to the ton, although results of specimen quartz would yield far more if treated. . . . The lands contain, for the reason of their extent, other quartz veins traversing them, but to this date I have not had time to explore them; in fact, with a knowledge of a vein of 2 ozs. per ton on the property, 'I rest and am contented.'"

CAPITAL £75,000, IN 75,000 SHARES OF £1 EACH,

Of which 20,000 shares have already been privately subscribed and allotted; 15,000 shares are appropriated as part payment of the property; 10,000 shares are reserved; and the balance 30,000 are now offered to the public at par.

75,000

Payable as follows:—1s. per share on application; 6s. per share on allotment; the balance by calls of 3s. each, at intervals of not less than two months.

It is fully expected not more than 10s. per share will be called hp.

DIRECTORS.

ALEXANDER WARD, Esq., Director Callao "Bis" Gold Mining Company of Venezuela (Limited). Major FORTESCUE, J.P., Director Silver Hill Mining Company (Limited). Sir RICHARD GETHIN, Bart., Chairman Quartz Hill Consolidated Gold Mining Company (Limited). H. STEPHENSON, F.R.G.S., 26, Suffolk Street, Pall Mall, London, S.W.

BANKERS-Messrs. SMITH, PAYNE, and SMITHS, Lombard Street, London.

SOLICITOR-LEWIS DAVIS, Esq., 19, Moorgate Street, London, E.C.

MANAGER AT THE MINES-Mr. WM. ROBOTHAM.

BROKERS-Messrs. MEDWIN and HERMAN, 1, Angel Court, Throgmorton Street, E.C., and Stock Exchange, London. SECRETARY-Mr. FRANCIS GANE (pro. tem.)

OFFICES-SOUTH SEA CHAMBERS, 97 AND 98, BISHOPSGATE STREET WITHIN, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company is formed to acquire, work, and develope the valu- | be over £45,000, or over 60 per cent. on the entire capital of the able gold mining property, situate in Guayana, Venezuela.

It consists of 100 hectras (about 250 acres) of proved mineral ground, with full water and timber rights, at a nominal rent of £60 per annum.

The purchare consideration is very low, being only £15,000 in cash and £15,000 in fully paid-up shares of the company.

The following facts speak for themselves:—

1st. There are three discovered lodes on the property from 5 to 6 ft. in breadth, besides leaders in between, which is a most favourable mineralogical feature 2nd. There are strong indications of four other lodes on the pro-

perty.

3rd. The ore is identical in character with that of the celebrated

Callao Mine, which has returned over two millions six hundred thou sand pounds sterling.

4th. The most important of all considerations—No steam machinery will be required to be erected at present, as a swift river flows at the base of the range wherein the lode is contained, having

flows at the base of the range wherein the lode is contained, having sufficient water-power to drive 40 head of stamps.

5th. The net profit in working 40 heads of stamps would be very large, basing the calculation at 2 ozs. of gold to the ton, but the directors desire to be well within the mark, and taking the returns at only 1 oz. to the ton (while the "Potosi" in the six months of last year gave 3 ozs.) the profit on crushing 120 tons of quartz per day (which the 40 heads could easily do), after allowing a very ilberal cost, and calculating of 300 working days to the year, would

ompany, 6th. Adjoining this property are 750 acres, which the directors have secured the option of purchase for six months from the 5th April last. In this option they are satisfied they have been very fortunate, as each day mineral ground is becoming of fabulous value. as it was during the gold rage in Australia and as it was during the gold rage in Australia and California—what was formerly bought by the square mile was afterwards sold by the square foot—and there is every indication of as great a demand for Venezuela mines, and even already inquiries have been made after this option with the view of purchase, and at such terms as would return 10s, in the £1 of the entire purchase money, but the directors anticipate greater results.

The only contract is one dated the 5th day of April, 1881, and made between Mr. Frederick Richter of the one part, and Mr. Francis Gane of the other part, as trustee for and on behalf of the

Prospectus, Report, and Forms of Application can be had on application to the secretary, solicitor, or bankers of the company.

In the event of no allotment, the amount paid on application will be returned in full.

Written applications, as follows, will be received:

I desire to apply for and enclose \pounds [shares in the New Callao (Limited), , being 1s. per share deposit.

Name (in full)..... Address Description

Mining Correspondence.

BRITISH MINES.

ASSHETON.—Joseph Garland, July 6; There is no change of importance in he 60, east of boundary shaft, the lode maintains its usual size, and contains

ASSHETON.—Joseph Garland, July 6; There is no change of importance in the 60, cast of boundary shaft, the lode maintains its usual size, and contains stone of lead on NITED.—R. Goldsworthy, July 6; There is no alteration to call for any special remark in the 127 or 115, on the north lode, since last report.—Bridge Lode: In the 20, cast of M'Colland's engine-shaft, the lode has improved, being 4 ft. wide, worth 154, per fathom. In the western end, in this level, the lode is trom 6 to 7 ft. wide, composed of quartz, gossam, arsenical mundic, and a very fine appearance, with every indication for further improvement.

BIUE HILLS.—S. Bennetts, R. Harris, July 2: The lode in the 50 cast end is 15 ft. wide, and worth 44. per fathom. In the 42 cast the lode is 2 to 3 ft. wide, and containing some good apots of fin; the cross-course seen in the level over the containing some good apots of fin; the cross-course seen in the level over the containing some good apots of fin; the cross-course seen in the level over the containing some good apots of this the containing some sould see the containing some good apots of this the containing some sould be a contained to the sould be a contained to go down much the same as it was in the driving. I have wall of the lode at the 130. The character of the ground and the spar is indicative of mineral, and the latter is becoming more disseminated throughout the end; progress at each point is being urged on with all speed.

BWICH UNITED.—William Northey, July 6: The lode in the 50 fm. level, which is 35 ft. deep the contained to go deep contained throughout the end; progress at each point is being urged on with all speed.

BWICH UNITED.—William Northey, July 6: The lode in the spar is indicated the contained the spar is indicated to the contained to the spar is indicated to the contained to the spar is the s

back of this level fully maintains its value—I ton of lead to the fathom. No other change. We have a good pile of leadstuff on the floors, and are preparing for the next sale.

DEVON COPPER AND BLENDE.—W. Skewis, July 7: The clearing of the engine-shaft is progressing satisfactorily, and I expect the 62 will be drained by the end of this month. The rise in the back of the 50 west is communicated with the 40, which now thoroughly ventilates this part of the mine, and will enable the clearing of these two levels with much greater speed. The stope in the back of the 50 east is being worked by four men, at 30s. per fathom; lode worth 32. per fathom for copper and blende. In the course of another week or so I hope to have one, if not two, more stopes at work. A very nice pile of copper and blende was brought to surface yesterday. The second boiler, which is now on the mine, is being put in thorough repair with all speed, and the crusher-house being built with a full pare of masons.

DEVON FRIENDSHIP.—Although it may seem something like repetition to a certain extent it will not be out of place to let you know what things we have completed on the mine and what we have still on hand. We have built a capital 90 ft. stack and successfully connected it with the calciner, finding a great improvement in the draught and the burning generally. The new shears and shaft pulleys are in order, and the Robey engine and steam capstan are fixed and working well. We shall finish the engine-bouse in a few days. The wheel pit has been cleared, and the masons are now bedding in the foundations for the bearings. The contractors are making fair progress with the wheel, and expect to have the axle (6 tons) on the mine in from two to three weeks. The other iron work is in a forward state, and we are preparing the timber work on the mine. The foundation for the nagle-bob is cleared and the ground is prepared for flat rods. We have set a contract to a pare of men to excavate the necessary ground for a balance-bob at Bennett's shaft at 5s, pe

You will see from the above that we are pushing on the work energetically and are making the most of fine weather. The lode in the adit end is 4½ ft. wide, yielding 6 tons mundie per fathom. It has a very kindly appearance. Stopes unaltered.

DEVON GREAT CONSOLS.—I. Richards, July 7: Wheal Emma: Inclined Shaft: In the crossocut north at the 190 east, the north part of the new south lode has been cut into from 6 to 7 ft., which appears to be its full width. The cross-cut will, however, be extended a little further to prove if any other portion still exists in that direction. It is of a very fine character, being composed of capel, quartz, peach, mundie, and a little good quality copper ore. In the 137, east of Friend's cross-cut, the lode is 5 ft. wide, of good promise, and producing some saving work of copper and mundie ores.—New Shaft, New South Lode: In the 205 west, on the north part of the lode, the lode continues to produce 2 tons of mundic and a little copper ore of good quality. In the 115 east, the lode is 2½ ft. wide, consisting of capel, quartz, and small quantities of copper and mundic ores. In the 90 east, the lode is 2½ ft. wide, compose of capel, quartz, peach, mundic, and a little copper ore.—Railway Shaft: In the Railway shaft, now 15½ fathoms below the 190, the ground continues without alteration. In the 150 west, on the north part of the lode, the lode is 51 ft. wide, producing 2 tons of mundic per fathom, and some copper ore of good quality. In the 175 west, on the south part of the lode, the lode is 5 ft. wide, producing 2 tons of mundic per fathom, and some copper ore of good quality. In the 175 west, on the south part of the lode, the lode is 5 ft. wide, producing 2 tons of mundic per fathom. There is no important alteration at any of the other points of operation throughout the mines.

DEVON GREAT UNITED.—Isaac Richards, July 7: The men are getting on well with putting in skiproad, &c., in Willesford's shaft, the work being completed as far down as the 60. In the 60, west of Willesford's

been nothing interior uncovered than some that as fast as possible.

EAST CARADON.—J. Kellow, July 6: I beg to hand you the following report of our setting on Saturday last:—To drive the 175 cross-cut south 1 fathom stent, by nine men, at 25t, per fathom, driven 1 fathom. To drive the 150 east, or caunter, 1 fm. stent, by six men, at 20t, driven 1 fm. 2 ft. 6 in.; lode still continues small. To drive the 90 east, on Fawcett's, 2 fms., stent by six men, at 13t, 10s., driven 2 fms.; lode here has increased in size, being now 2 ft. wide,

composed of peach, quartz, and mundic, intermixed with ore. To drive the 30 west, on Fawcett's, 2 fms. stent, by slx men, at 111, driven 2 fms. 2 ft.; lode 1½ ft. wide, producing saving work for copper. To drive the 70 west, on Fawcett's, 1 fm. stent, by six men, at 15£; the ground has a little improved for driving. To drive the 60 west, on Fawcett's, from cross-course, 3 fms. stent, by six men, at 9½, driven 3 fms. 1 ft.; lode 1½ ft. wide, producing good saving work. To drive the 60 east, on Fawcett's from cross-course, 2 fms. stent, by four men, at 12½, driven 2 fm. 2 ft. 3 ft.; no change here since last reported on. To drive the 60 west, on Fawcett's from main cross-cut, 2 sms. stent, by six men, at 14½, 10s., driven 1 fm. 5 ft. 8 in.; lode 1 ft. wide, composed of peach, quartz, and mundic, with ore intermixed. To drive the 50 west, on Fawcett's from main cross-cut, 1 fm. stent, by six men, at 17½, driven 1 fm. 3 ft.; lode 1 ft, wide, composed of quartz and mundic. Two stopes are being worked by four men, at 15± 10 ft. 2 fm. CRANEN MOOR. IN Williams 1 km. 2 fm. 2 fm. 4 ft. 3 ft.

munic, with ore intermixed. To drive the sy west, on rawcetes irrol main cross-cut, I fim. stent, by six men, at 11t., driven 1 fm. 3 ft.; lode 1 ft., wide, composed of quartz and mundic. Two stopes are being worked by four men, at 15s. in 1t.

EAST ORAVEN MOOR.—D. Williams, July 7: The 76 west has been extended from shaft 31 fms. 3 ft., and driven during the past month 16 ft. 6 in.; the vein in the present end is 2 ft. wide, and carrying good patches of lead ore. We have commenced cross-cutting south-west to get under the working upon the main lode west of the heave in the 54 above; a stope in the back of the level in a vein 25 ft. wide is worth 15 cwts. of lead ore per fathom, wrought at 80s, per ton of dressed ore. A stope in the back of the 76, east of shaft, in a vein 3 ft. wide, and worth 20 cwts, of lead ore per fathom, wrought at 80s, per ton of dressed ore. A stope in the back of the 54, east of shaft, in a vein 2 ft. wide, worth 12 cwts, of lead ore per fathom, wrought at 80s, per ton of dressed ore. A stope in the back of the 54, east of shaft, in a vein 2 ft. wide, and worth 10 cwts. of lead ore per fathom, wrought at 100s, per ton of dressed ore. A stope in the back of the 54, east of shaft, in a vein 3 ft. wide, and worth 10 cwts. of lead ore per fathom, wrought at 100s, per ton of dressed ore. A stope in the back of the 54, west of shaft, in a vein 3 ft. wide, and worth 10 cwts. of lead ore per fathom. The 54 west upon the main lode, is in from cross-cut 12 fms. 3 ft. in a vein 2½ ft. wide, and worth 12 cwts. of lead ore per fathom. The rise behind the end has been holed throught to the level above, and have two pares of men stoping the back at 100s, per ton of dressed ore. The 54 east, upon the main lode, is in from cross-cut 18 fms. in a vein 2 ft. wide, and worth 10 cwts. of lead ore per fathom. Good progress is being made with all surface operations, and our machinery is working well. We have weighted off the produce in pig of 50 tons of lead ore, and have twhere 30 tons at the mill ready for

two when it will be ready to start, but I am arraid it will scarcely be at the time named.

EAST ROMAN GRAVELS.—A. Waters, July 7: The 109, south of the engineshaft, has improved in character and slightly in value since yesterday. All the other points are just as described in my general report.

EAST UNY.—Henry Eddy, Jas. K. Harvey, July 7: Since our report last week we commenced working in the side of the 70 cross-cut on a branch of copper, which has developed itself (in 3 ft. driving) into a shoot of ore worth 104, per fathom. We have no doubt this is connected with a large deposit of copper, and as it will join the lode about 2 fms. above the level, we shall at once commence to rise to reach that point. We have just reached the outer wall of No 2 lode, and find that it produces both tin and copper, and shall be breaking into it at once to prove its value. There is no material change elsewhere since our repart last week.

repart last week.

EAST VAN.—W. H. Williams, July 7: I have just returned from East
Van. In the cross-cut B B there is no very particular change; ground rather
hard, and showing spots of copper. In cross-cut E E the water is increasing, a
sign of our proximity to the best part of the lode, which we hope to reach in a

EAST VAN.—W. H. Williams, July 7; I have just returned from East Van. In the cross-cut B B there is no very particular change; ground rather hard, and showing spots of copper. In cross-cut E E the water is increasing, a sign of our proximity to the best part of the lode, which we hope to reach in a week or nine days.

EAST WIFAL CREBOR.—George Rowe, July 6: The lode in the 70, west of the engine-shaft, is 1ft. 6 in, wide, producing arsenical mundic, with good stones of ore, and showing an improved appearance as ste drivage goes off from the influence of the large cross-course. The north lode in the 70, west of cross-cut, is also showing an improved appearance, and increasing in size, with fine stones of ore. The lode in the stope below the 60 is worth 10t, per fathom.

EAST WIFAL ROSE.—Capt. Thos. Doidge: We have cleared Penrose's shaft 15 fms. and put in necessary timber, but seeing that in the last few fathoms our progress was slow, as we had to draw the stuff by manual labour, we stopped clearing and put the shaftmen to case and divide this 15 fms. for whim shaft; this is completed, and to-day the shaftmen are busy preparing and erecting a shaft tackle for drawing the stuff when the engine and boiler for same are completed. There has been some delay in connection with the castings for the boiler of drawing engine through the foundry people's neglect, but I am pleased to say it is now to hand, and the engineers with others are pushing forward this work, and I hope by the end of this week to get the engine to work, when we shall resume clearing Penrose shaft with all speed. The masons are busy about Penrose engine-house, and in the past fortnight we have built a wall around the boiler for drawing engine. Also we have built a pitman's house and the roof is being put on, and I think will be completed in a day or two, when all the masons will return to building the engine-house.—Quarry Work: Light men have been clearing away the rubble from the bottom of quarry, which has exhumed a good bed of stone, and which we

the mine you will have to refine the arsenic on the spot instead of selling it in its crude state.

GAWYON COPPER.—George Rowe, George Rowe, jun., July 2: During the past week the mine has been thoroughly inspected by Capt. Rich, who appears to be well pleased with the future prospects of the mine both underground and at the surface, seeing the rapid progress made since his last visit on the new arsenic works, and the forward condition of its completion, in order to commence burning the large stores of arsenical mundic accumulated on the works. The lode in the 117 east is showing an improved appearance, being chiefly composed of capel and mundic, with good stones of ore; worth 8.7, per fathom. The lode in the stope in the back of the 117 is worth 10.7, per fathom. No. 2 stope in the back of the same level (117) is worth 12.7, per fathom. The lode in the stope in the bottom of the 105, east of cross-cut, is worth 107. Per fathom. The ground in the cross-cut, going through the north part of the lode, at the 55 east, is principally hard capel and spar, mixed with mundic and ore. The south part of the lode at the 70, going east of cross-cut, is yielding 10 tons of mundic per fathom. All our surface operations are progressing very satisfactority.

satisfactorily.
GLASGOW CARADON CONSOLS.—W. Taylor, W. J. Taylor, July 5: The shaftmen have finished their bargain about the skip-road to the 114, and are again driving the cross-cut south; the ground is just of the same character, letting out water, and we are expecting almost daily to cut another branch—we passed two or three in the level above the 102—before we reach the new south lode. The

water, and we are expecting almost daily to cut another branch. we passed two or three in the level above the 102—before we reach the new south lode. The 114 east, on a branch from the shaft, contains some good ore, and we hope as it is opened on it will further improve. There are important points in this deep level, the opening of which we are anxiously locking forward to in the hope that they will lead to some good discovery. We have no change to notice in any other part of the mine, and everything is being pushed on as fast and as economically as possible. Our next sale of ore will be (computed) 200 tons, which will be sold at Truro on July 22.

GLENROY.—R. Rowe, July 6: We have commenced to sink the shaft below the 122. In the 108, driving north, the lode is the full width of the driving (4ft. wide), containing a little blende, and of a promising appearance. The stope in the roof of the 25 continues to yield some nice stuff for lead and blende.

GOBBETT TIN.—J Browning, July 7: I am pleased to say that the ground in the adit level continues most favourable. We are rapidly advancing towards No. 2 lode, which when cut I have no doubt but what it will be a very productive one.

GODDARD'S LEAD.—R. H. Vivian, July 7: The sinking of the engine-shaft is being continued, and good progress has been made this week; the distance sunk during the week has been 4 ft,; the lode is strengthening, and becoming larger and more productive for lead ore, now worth at the bottom of the shaft [ull 9 owts. of lead ore per fathom. The stoping has also been pushed forward in a productive lode for lead and blende.

GREEN HURPH.—W. Vipond, July 1: There is still no ore in the cud of the opening level, south from Swan shaft; vein quite small. The sole and roof of the standage level north is now yielding 6 tons of ore per fathom; I think we shall begin to put a rise up from this to the 30 next week, so that the whole of the work will go to the cages at one place. We can take down the remainder of the roof of the standage level afterward

stope, above the 30, going on to Vipond's sump, is yielding 3 tons of ore per fm. The stope in the sole of the 30, going north, is yielding 2 tous of ore per fathom. The stope over the 30, going no to Robinson's sump, is yielding 8 cwts. of ore per fathom. No change yet in the cross-cut south from the adit level.

GORSEDD AND MERLLYN.—W. Edwards, July 6: I am pleased to say that the end in the 70 east is now improving; the ground is not quite so hard, and there is every sign of the lode opening up. Driven since last report 1 yard 2 ft. 6 in. The 70 west, driving south on the north and south lode, looks very promising this morning; worth for lead 14 cwts, per fathom. Driven since last report 3 yards. The end in the 90 west, I am very glad to say, keeps looking well; the beds are rising as we go westward, and the lead is also following them. Both the lead and blende are getting stronger, and at present it will produce for lead 22 to 25 cwts, per fathom will be successed in No. 2, 18 cwts, per fathom. No. 3, 16 cwts, per fathom. No. 1 pitch, in the roof of the 70 east, the lode is worth 16 cwts. per fathom. No. 2, 18 cwts, per fathom. No. 3, 16 cwts, per fathom. No. 1 pitch, in the east end is fully 4 ft. wide, with carbonate of lime and decomposed shale; a little water also percolates through the joints, which is an encouraging feature. In the west end the lode is 5ft. wide, principally carbonate of lime, and similar in character as the eastern driving. In the 80 west the ground is rather easier for progress, and the lode shows an increased quantity of blende, slightly charged with lead ore. At Brammock shaft in the 60 east we have commenced to open a cross-cut put out north. Have alreacy come upon a strong lode containing blende and a little lead ore. When cleared to the forebreast will report fully the length and characteristics. The pitches at this level and at the 40 maintain the same value and appearances reported last week. At Office shaft the pitch in the bottom of the 60 has slightly improved, both in cha

of blende, but not enough to value, but I am hoping it will be showing an improvement very shortly.

GREAT WEST CHIVERTON.—J. Curtis, July 5: We are making fair progress in sinking the engine-shaft below the adit. There is no change to notice in the lode since I last wrote you.

HINGSTON DOWN.—Thomas Richards, July 6: The whole of the pitwork has been completed, and the engine and all in connection therewith is working in a very satisfactory manuer, and the driving of the 12, east of the engine-shaft, is resumed, in which the lode continues of the same promising character, containing capel, quartz, peach, prian, and a little good saving work for copper ore. The shaftmen are now engaged putting in the skip-road and drawing gear. This work will be completed and the sinking of the engine-shaft resumed as soon as possible. No. 1 lode in the deep adit level, east of the south cross-cut, contains capel, quartz, arsenical mundic, and occasional good stones of ore, and is promising. The deep adit level east of the south cross-cut, on the No. 2 lode, is for the present suspended.

KILLIFRETH.—John Michell, Joseph Tamblyn, July 5: The lode in Hawke's shaft, which is sunk 7 ft. below the 20, is 5 ft. wide, and worth 20t. per fathom

for the present suspended,

KILLIFEETH,—John Michell, Joseph Tamblyn, July 5: The lode in Hawke's shaft, which is sunk 7 ft. below the 20, is 5 ft. wide, and worth 20t. per fathom for tim. The lode in the 20, east and west of the shaft, for the last 2 or 3 fms. Iriving, has been split by cross branches, but we think in a short time it will improve again. We have set to drive north and south of the shaft at the 20, and expect to intersect two or three lodes in about 20 fms. driving. In the winze sinking below the 10, about 20 fms. in advance of the 20 end west of shaft, the lode is 3½ ft. wide, and worth 10t. per fathom for tim. The other bargains in this part of the mine are just the same as last reported.—Old Sump: The lode in the 40 driving east is split into two or three parts, but we think they will come together again ina fathom or so more driving. The lode in the 30 driving of mundic, soft spar, and capel, and producing a little tinstone.

KIRK MICHAEL.—R. Rowe, July 6: I do not see any change of note from last report. In the 20 driving north there is a nice branch of ore going along the bottom of the level, but the upper part is poor; the shaft sinking below is without change, the lead-bearing part of the lode is still about 4 ft. wide. In the 20 driving south the same improved lode continues, it is the full width of the cond, and interspersed with lead throughout. I trust this will soon lead to something good; the driving is in whole ground, and going into immense cover. We have began stoping the roof of the 20 this week. On Monday next we shall begin to send the lead up to Doulas for sampling.

KITHILL GREAT CONSOLS.—Isaac Richards, July 7: The appearance of the lode in the trial sink at the quarry is unchanged, still maintaining its very promising character. The surface work generally is being got on with very satisfactority, and the clearing of the shallow add at the north shaft is in a forward state of completion.

LADYWELL.—Arthur Waters, July 7: We are continuing the deep adit south.

promising character. The surface work generally is being got on with very satisfactority, and the clearing of the shallow adia at the north shaft is in a forward state of completion.

LADYWELL.—Athur Waters, July 7: We are continuing the deep adit south on the original course, and in addition to the regular lode we have now some strings and branches of spar, which have come in from the hanging-wall side. The outlook is, therefore, more favourable than for some time past.

LADY BERTHA UNITED.—Thos. Neill, July 7: I am pleased to state that good progress is still being made in the clearing of the new shaft and levels. We have not yet been able to set the two ends at the 53 cast and west of shaft, but hope to be able to do so next week, which, I am of opinion, will prove most successful; the lodes are composed of very rich mundic and copper, and this being in whole or virgin ground we may expect some fine discoveries. The stopes in the back of the 30, cast and west of shaft, are yielding in the aggregate from 30 to 35 tons per fathom, the lodes still bearing the same quantity of stuff, and of good percentage. The discovery which was made in the 40 last week is still greatly improved, and is now worth for mundic 25 tons and copper 6 tons per fathom. I have not seen a finer lode for some considerable time; this will bear out the above, and the mine throughout is looking all that can be desired. We have now at surface ready for sampling about 200 tons of mundic and about 10 tons of copper, and underground broken about 250 tons and from 10 to 15 tons of copper ore. The machinery is working well.

LLANDEGLA.—H. Hotchkiss, July 5: Whim Shaft: The level which is being driven west with all speed is in a lode over 4 ft. wide, of a promising character, and which appears to be enlarging as we extend our driving in this direction towards the junction of this lode with the north and south lode, at which point I look forward to intersecting a rich course of lead. There is no new feature that calls for special notice in the cros

LOMAX.—Wm. Argall, July 6: The ground is still easier in the end, and the lode split, so that we must be near the flookan; we shall continue driving on the branches.

MARKE VALLEY.—W. George, July 7: The ground in the 90 end west continues moderately favourable for driving. The lode has not been taken edown since our last report. The winze sinking below the 90 continues to yield 3 tons of good quality ore per fathom. We have met with a small branch in the 20 cross-cut south, but still think there is more lode further south. Shall, therefore, continue the driving to prove it. There is no alteration in either of the tutworth bargains or tribute pitches to notice. We are making a little better progress in clearing Wheal Jenkin adult this week, but it is still in a badly broken run of ground. Our computation of ores for next sale is 210 tons.

MELLANEAR.—John Gilbert, July 6: There is nothing new in the 30 cross-cut, driving south of Gundry's shaft, but the ground continues easy for driving, and the cross-cut is extended 15 fins. south of the main lode. The lode in the 60, driving west of shaft, is 2½ ft. wide, and yielding saving work for blende and occasional stones of copper ore. The ground in the 70 cross-cut, driving north from the main lode, sigetting much mineralised with small branches of copper or and mundle, and if it were not so dry I should think it was very near the lode. In the 80, driving west of Gundry's shaft, the lode is 2 ft. wide, and yielding some good stones of copper ore per fathom, and some good stones of blende. In the 90, driving west of shaft, is still yielding ½ ton of copper ore per fathom, and some good stones of blende. In the 90, driving west of shaft, in lode is darker than it is in the other western levels. The lode in No. 1 winze, in the bottom of this level, is 5 ft. wide, and yielding 5 tons of ore per fathom. The rise in the back of the 100, west of shaft, is yielding 1 ton of ore per fathom. The rise in the back of the 100, west of shaft, is yielding 1 ton of ore per fathom. T

hole through here soon. The pitch in the back of the 30 continues to look mue as usual for bluestone, and is also producing a little copper ore. The pitch at the 20 is yielding a fair quantity of bluestone, and looking better for copper. The mine on the whole is looking much better.

MOUNT CARBIS.—W. Tregay, George Johns, July 7: We are fixing the engine into the house, building new belier on the mine, erecting boiler-house, carpenters' shop, material-house, &c., and making good progress in all these surfaces operations. The shaft on the tin lode, in the western part of the mine, has been communicated with the deep adit level; here we have an accumulation of stuff, which has to be cleared through this shaft; as soon as this is accomplished we shall be enabled to open upon the great flat lode, around the spot which produced the rich stones of tin which have already been reported—this we hope to be doing next week. We are making fair progress with the south shaft, which we are opening upon the copper lode, and getting good stones of copper ore therefrom. This is a very productive lode in the adjoining mine, and we shall soon have our shaft down upon it, at a point where we expect a good course of copper ore.

MOUNTS BAY CONSOLS.—W. Arcall: This week we think will complete.

soon have our shaft down upon it, at a point where we expect a good course of copper ore.

MOUNTS BAY CONSOLS.—W. Argall: This week we think will complete the repairs to the adit level from the mouth to engine-shaft on No. 1 lode. In a few days we propose driving a little west on No. 2 lode from the shaft 10 fms. deep. Last week I put two men to search for a lode between the Nos. 2 and 3 lodes, and we have found It; it is a highly strong mineralised gossan back, containing iron, mundic, and a few spots of silver-lead. The lode is 3 ft. wide, and we have put the men to sink a little on it. Atall events, this is a very important feature for us. The masons will this week finish the smith's shop, and the carpenter is preparing roof for it. The other men are engaged raising stone, and clearing foundation of engine-house.

NEW PENROSE—John Curtis, July 5: In the deep adit west of the winze there is material change to notice. We have discovered near the cliff a small branch of tin of a rich quality. I will send you a specimen of it in metal in a day or two.

day or two.

NEW KITTY.—Wm. Vivian, July 7: The work in the engine-shaft is being pushed on with all speed. I hope to reach the 22 by the end of next week.

NEW POLBREEN.—Wm. Vivian, July 7: There is no change to notice in the

NEW POLBREEN.—Wm. Vivian, July 7: There is no enange to notice in the mine since last report.

NEW WEST CARADON.—N. Richards, July 6: We have a full pare of men in the 33 cross-cut south of Hallitt's shaft, the driving of which is being urged on with all possible dispatch. The lode in the 42 fm. level west of Hallett's cross-course is over 3 ft. wide, and will yield 2 tons of ore per fathom. This lode in the rise in the back of this level will yield about 2 tons of copper ore per fathom. We have now placed a pare of men to drive east of this cross-course at this level, with a view of proving the lode in this direction, where we hope to find it productive after we get away from the influence of the cross-course. There are other points which we have not lost sight of, and which will be worked as soon as a communication is effected.

There are other points which we have not lost sight of, and which will be worked as soon as a communication is effected.

NORTH DERESBY MOUNTAIN.—R. H. Vivian, July 7: The sinking the shart is going on with more force this month; I have let it for the month at 3\(\text{\ell}\), per fathom, the men to wheel out all their stuff. We are now coming into a more productive part of the lode near the footwall, which, I believe, will give us much more lead ore. On the whole, this is the most promising viel I have ever seen in the mine; it is bomposed of nice crystallised carbonate of lime and lead ore, worth about \(\frac{1}{2}\) fon of lead ore per fathom. The lode is decidedly improved in the lead ore, worth about \(\frac{1}{2}\) fon of lead ore per fathom. The lode is decidedly improved in the lead ore, worth about the same as for many weeks past, worth near \(\frac{1}{2}\) to to the fathom. The lode maintains its very congenial character.

very congenial character.

NORTH GREEN HURTH.—W. Vipond, July 1: There is no change to notice in the ends of either levels this week; both are making satisfactory progress. We are preparing to put up the new smithy, &c., and finish off any outside work there is at present.

NORTH HERODSFOOT.—Thos. Trelease, July 7: The shaftsmen have been engaged fixing pipes to carry the water from the 80 to the 90 and other work

NORTH "HERODSPOOT.—Thos. Trelease, July 7: The shaftsmen have been engaged fixing pipes to carry the water from the 80 to the 90 and other work this week preparatory to fixing the skip road, footway, &c. I have put four men to strip the pice of lode standing in the side of the 80 about 5 fms. behind the end; the lode in this place is yielding fully 8 cwts, of silver-lead per fathom. The stope in the back is yielding fully 8 cwts, of silver-lead per fathom. The stope in the back is yielding fully 8 cwts, of silver-lead per fathom. I have set this stope for the month at 38s, per fathom. The 50 still continues unproductive in the end, and I have put the men to drive west to see if we can interest the lode in that direction. There is a quantity of quartz mixed up with the clayslate in the end, intermixed with mundic and spathose iron, which I think are indications of the lode being in this direction. The stope in the back of this level will now yie d 6 cwts, of silver-lead ores per fathom.

NORTH PENSTRUTHAL.—Stephen Davey, Wm. Polikinghorne-Muly 7: High-burrow Shaft: In the 120 cross-out north we have cut the lode, which is about 7 ft. wide, and composed of quartz, chloride, mundic, and a little tin, but not sufficient of the latter to value. We shall commence at once to open cast and west on its course, when we hope soon to reach the run of tin gone down in the level above. We have no special change to note in either of the other bargains throughout the mine, but next will be a detailed report for the general meeting.

NORTHEN LEAD,—T. Tonkin, July 7: There is a considerable improve.

level above. We have no special change to note in either of the other bargains throughout the mine, but next will be a detailed report for the general meeting.

NORTHERN LEAD.—T. Tonkin, July 7: There is a considerable improvement in the adit level stopes, the yield of ore at present is 10 cwt. to the fathom. The drivage forward into the coal sills is also improved in yield of ore, but is still hard. The 15 level tribute stopes are looking better this week, and the yield of ore is 12 cwt. to the fathom. There is no change to notice in the flats east section. The stopes above the 42 west section give an average yield of 10 cwt. of ore to the fathom. We are operating at three different places. The cast section stopes will yield 10 cwt. to the fathom. Allour stopes are worked on tribute. The rise west of Gin shaft, into quarry hazel still, is yielding occasional good stones of ore, and we are getting good saving work from this and a part of the lode left standing in the level side near to Gin shaft. Other operations are going on as usual. We have had some good showers of raie, and dressing is going forward as speedily as possible. The machinery is in falt working order.

OKEL TOR.—H. Bulford, John Rodda, July 7: No change since last reported. PANDORA.—H. Nottingham, July 7: Engine Shaft, New Lode: In stripping the lode bottom we find it fully 10 ft. wide, mixed with ore throughout; worth about 1 ton per fm. The shaft is now 4 fms. under the 45. At the 45 the end driving south of shaft is opening up a strong fine ore bearing lode, and the usual bend in the footwall, with other indications that we are entering the No. 1 south run coming down from the 33. The stope north of shaft is worth 1 ton of lead and same of blende to a fathom. We have not yet stoped down any of the back near the shaft where the richest lead is. At the 33 south on Goddard lode.—Surface: We have finished the walling of the upper reservoirs, and put then all in a sound and substantial condition. We are also getting on well with the other new work

the other new work in hand. Dressing in a'l its branches is going on at full speed and good progress being made.

PARYS COPPER OORPORATION.—T. Mitchell, July 7: The 90 cross-cut south continues to go forward in nice-looking ground. We have just passed through a flookan course, letting out a feed of water. The ground about this place is a little easier for cutting, and good progress is being made in the driving. The lode in the 99, west of cross-cut, continues to yield some good copper ore, in which we find solid branches, and the forebreast is looking very kindly. The end driving east at this place is also producing a little ore, and looking very promising. The end east of the cross-course, on the Carreg-y-Doll lode, continues to yield about 1½ ton of copper ore to a fathom, and the ore here has improved in quality. The stopes and pitches are looking much the same as for some time past.

continues to yield about 1½ ton of copper ore to a taxnom, and the ore necessimproved in quality. The stopes and pitches are looking much the same as for some time past.

PANT-Y-MWYN.—E. Parry, July 7: The lode in the 22, west of Modlyn, is getting wider and a little softer as we advance, which is now at the rate of 6 ft. per week. The end is giving out a little water in every part of lt. We have every reason to expect the lode to be productive a little further west. No change in any other part of the mine.

POLBREEN.—J. Prisk, July 5: The new shaft is holed to the adit. I hope, by the end of this week, to make it complete to the bottom of the level, after which we shall have to clear the adit for a fathom or two east for the purpose of getting into solid ground to the east end of the sink made by the former workers. This work will take ten days to a fortnight, after which I shall be in a position to go below the level, and shall then be ready for the engine.

PENHALLS.—S. Bennetts, R. Harris, July 2: The 8 west end is at present between two sections of lode. In the rise 70 cast the lode is 1½ ft. wide, and worth 80, per fathom. In the 50 east end it is worth 80, per fathom, a winze below the 50 west is worth 70, per fathom. The 55 east is worth 80, per fathom, a winze below the 50 west is worth 70, per fathom. The 55 east is worth 80, per fathom, and the north lode in the 42 west is producing some low quality tinstuff, but at present not of mach value.

PENNANT.—July 6: Good progress is now being made in driving the 80 end, and the lode is opening up. The stopes continue to yield as for some long time past, and we are very busy in preparing stuff on the floors, for which we find a ready sale.

PENYAR-ORSEDD.—R. Prince, G. Bellis, July 6: We have not made the pos-

past, and we are very busy in preparing soul on the acous, for which we had a ready sale.

PEN-YR-ORSEDD.—R. Prince, G. Bellis, July 6: We have not made the progress I anticipated during the last fortnight, as I expected to have announced the intersection of the lode in the 150 cross-cut north. We are, however, very near the line of the lode, and all the water now flows from the end of the level. We may, therefore, have important news in a day or two. As soon as we have cut through the middle lode we shall further urge on the cross-cut to intersect the main lode, and I trust the returns will then be such as to reward us for our patience in the past. In the south cross-cut although the ground is hard there is now more spar coming in the end, with every indication of an important change about the contraction.

wide, and improved to 1½ ton of ore per im., and letting out a little more water. The 110, driving west of shaft on the south part of lode, is yielding 3 tons of ore per fathom, and appears to be a very strong and promising lode. Gundry shaft, sinking below the 110, is still in eivan, which is letting out a good deal of water. There is no change since last report in either of the levels driving east and west of the lode of the levels driving east and west of the lode of the lode of the level of the level of the lode of the lode of the level of the lode of the level of the lode of the lode of the level of the lode of the level of the lode of the level of the lode o

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good stor TANK ankervi 3l. per fa ut, by si rest on r 50. 1 stop To the south of this point, in the sump below the 80 yards level, fine lumps of ore were broken from a shoot of ore going downwards, and arrangements were progressing to deepen on the same level, and begin raising ore. We may, therefore, expect to soon obtain returns from both the above points. In the 60 east the driving has been temporally suspended for want of air, the forebreast of the level being 90 yards away from the shaft. During the summer the surface being warm and close the ventilation below is obstructed. Air-pipes will be inserted, and a fan set to work as soon as possible, when the work here will be resumed. Towards the end of this level in the rise to the roof on the Pant-y Pydew branch lode some fine lumps of galena were broken last Saturday, which assay 78 per cent. of lead and 6 cos. 2 dwts. of silver per ton. We may hence anticipate speedliy obtaining returns here also on the resumption of work. So far everything has progressed in a highly satisfactory manner. The works are culminating at various points, and nothing could be better than the way in which the mines are developing.

We have commenced raising ore from one shaft, and shall shortly be doing the same at two other points; and at a fourth we may strike into a body of ore at any moment, and thus our ore returns will be considerably augmented. I feel more than confident that the high opinion formed of this property before even an ounce of ore was visible anywhere will be fully realised, if it does not far surpass the richest expectations of the most sanguine. The more I see of this property the more am I constrained to believe in the opinion of Professor Warrington Smyth that "there is more lead in the Halkyn Mountain that ever has been taken out of it." To appreciate the value of this opinion it must be borne in mind that the sales at the Holywell ticketings at one time amounted to 1200 tons fortnightly.

has been taken out of it." To appreciate the value of this opinion it must be borne in mind that the sales at the Holywell ticketings at one time amounted to 1200 tons fortnightly.

Copper and Lead Mine, Harlech: The mine captain reports that the sump below the deep adit on lead lode has been sunk 24 ft. on a promising lode, 3 ft. wide. The cross-out towards new copper lode has been driven 22½ ft., strings of wide. The cross-out towards new copper lode has been driven 22½ ft., strings of guartz being met with, indicating that the lode is near at hand.

POLROSE.—J. Bennetts, July 6: The lode in the 100 cast maintains its size mod strong character; it contains a little tin throughout, saving work, with ocasional stones of good tin. I have not seen a more promising lode before in the nine, and by far the best part of the lode is in the bottom of the level. The near are making good progress in driving the 100 west, and from the appearance of the ground I think we are nearing the cross-course. In the 90 west the lode or the last two weeks has been a little smaller than usual, but it is producing good stones of tin with not so much mundle associated with it. There is nothing new in the 90 cross-cut south; the ground continues very wet, and is mixed up with spar. We commence on Monday to drive the 90 cross-cut north, and the near are engaged tixing air pipes and putting in barrow road. In the western dit we are now opening up a shaft for ventilation and hauling at the furthest coint to which the south-east level is cleared.

PRINCE OF WALES.—S. Roberts, July 6: We have nothing new to notice in Watson's engine-shaft since last week. The lode in the 90 end east is much unproved, which in the extreme part of the end is 1½ ft. wide, rich in copper re. We put the men to open the end and drive by its side in order to save it; sonsequently we shall not be in a position to see any more of it for some days. In the rise in the back of this end the men are still rising in the killas; the inde being hard can be more easily blaste

progressing favourably.

ROMAN GRAYELS.—Arthur Waters and Son, July 7: The 125, north of new mights-shaft, shows a lode 7 ft. wide, composed of white carbonate of lime, with good stones of soft lead ore of a kindly character. The lode in the same level, touth of shaft, is twiched up at present, which corresponds with the same run if ground in the 10. The 10, north of old shaft, is worth 2 tons per fathom. The 10 good stones of soft lead ore, and improving; we had have a good run of ore here shortly. The 80 cross-out west, towards Big ode, is very wet, and we expect to reach the vein shortly. The winze below this level, on middle portion of the lode, is down 9 fms. 1 ft.; worth at present 13/5 tons per fathom. The 53 south of No. 2 cross-cut, on footwall bourse, is worth 1 to per fathom. The 53 enth, on langing wall division of the lode, is very worth 1 ton per fathom. The 53 end is south of No. 2 cross-cut, on footwall bourse, is worth 2 ton per fathom. The 53 end is south under the line of the 10 winze, and the men have commenced to rise to-day. We hope to hole to the winze in about a week from now. The stopes generally are yielding ore in quantities up to the avarage for the last six months. We have to-day sold 150 tons of lead ore for 1406/c. 5s.

SILVER HILL.—G. Rickard, July 7: In driving the tunnel north towards the various lodes we have to-day entered the killas or clay-slate, and from all pipearances I think we are entirely through the elvan. The driving is being pushed on as fast as possible, and good progress is being made. Saturday next will be the end of the month, and the ground driven for that period will then emeasured and the number of fathoms, with other work done, shall be reported next week.

SORTRIOGE.—W. Skewis, July 7: The engine-shaft is cleaned up to the arch rogressing favourably.
ROMAN GRAVELS.—Arthur Waters and Son, July 7: The 125, north of new

the various lodes we have to-early entered the shills of carby-alact, and rom all presented in think we are entirely through the civan. The driving is being unded on as fast as possible, and good progress being a few that in the period will then e measured and the number of fathoms, with other work done, shall be reported ext week.

SOHTRIDGE.—W. Skewis, July 7: The engine-shaft is cleaned up to the arch as strongly timbered, arch taken out and shaft cleared to about 6 fms. below the 30, at which point we find the water. The 30 is choked about 2 fms. from the 30, at which point we find the water. The 30 is choked about 2 fms. from that 1; the men are now engaged in clearing it; this, however, I hope will be ecomplished in a few days, so that I may be enabled to make a thorough interest of the consequence of the consequ

aft at the 60. The carpenters are busily engaged getting ready

is the engine-shaft at the 60. The carpenters are busily engaged getting ready the flat-roids, &c.

SOUTH TOLCARNE.—Thomas Angove, Samuel Arthur, July 6: The engine shaft sinking below the 60 fm. level is down 10 ft., the load large, producing awing work for tin throughout.—The 60 end east: The lode is large, kindly in ppearance, but is produces no tin to value.—The 60 end west: The lode is large, latting out a quantity of water, and producing saving work for tin.—The 50 end still good a quantity of water, and producing saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the saving work for tin.—The 50 end still good and the first good and the form of 40 fm. level continue much the same as when last reported on.

SOUTH WHEAL OREBOR.—J. Goldsworthy, July 5: The ground in the 46 exoss-cut north, towards the main lode, shows indications of an improvement at the end advances. The dividing and casing of the shaft will be completed to-day, and we shall now put in permanent footwary, &c. There is no other change to the wince shifting in the 37 south is 2 ft. 6 in. wide, producing 4 covts. of silver-lead per fathom, promising for further improvement. There is no change in the 27 cross-cut west since last report. The lode in the same level south is full 5 ft. wide, a very fine masterly looking lode, producing good stones of rich silver-lead; and from its promising appearance we are daily expecting a further improvement.

TANKE KEVILLE GREAT CONSOLS.—Arthur Waters and Son, July 7;

cood stones of rich silver-lead; and from its promising appearance we are daily expecting a further improvement.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, July 7: Tankerville: The 220, west of Watson's shaft on No, 1 north lode, by six men, at 12. per fathom; lode worth 30 cwts, per fathom. The same level, east of cross-cut, by six men, at 12. 10s.; lode worth 30 cwts, per fathom. The stope in 220, west on morth lode, by four men, at 5. 10s. per fathom; worth 15 cwts. per fathom who is per fathom; worth 10 cwts. per fathom worth 15 cwts. per fathom worth 15 cwts. per fathom worth 15 cwts. per fathom sworth 15 cwts. per fathom sworth 15 cwts. per fathom No. 3 stope west by two men, at 5. 10s. per fathom; worth 10 cwts. per fathom. No. 1 stope in 220 east by four men, at 5. 10s. per fathom;

worth 20 cwts. per fathom. No. 2 stope east by four men, at 5l. 10s.; worth 20 cwts. per fathom. The 20s, east of No. 1 cross-cut on south lode, by four men, at 10l. per fathom; lode 2 ft. wide, yielding stones of lead orc. The 20s cross-cut, north of Watson's shaft towards north lode, by four men, at 8l. 10s. per fm.; we expect to cut the lode in a day or two. The stope in 20s, west on Roberts's lode, by four men, at 9l. 10s. per fathom; worth 30 cwts, per fathom. Stope in same level, west on main lode, is worth 15 cwts. per fm.; working by four men at 5l. 10s. per fathom. The 182, west of shale on old lode, by four men, at 9l. 10s. per fathom; lode very wet, and yielding stones of lead orc. The stope in 10s cast of shaft on morth lode, by four men, at 6l. 10s. per fathom; lode very wet, and yielding stones of lead orc. The stope in 10s cwts. per fathom. The 7s, east of junction on south lode, by four men, at 8l. 10s. per fathom; worth 25 cwts, per fathom my lode, by four men, at 6l. 10s. per fathom; worth 15 cwts, per fathom with 15 cwts, per fathom; worth 15 cwts, per fathom with 15 cwts, per fathom of lead orc. The adit cross-cut to pump sump shaft by six men, at 8l. 15s. per fathom. We have six pitches by twelve men at tributes varying from 80s, to 120s, per ton of lead orc.—Pennerley Mine: We shall have the water drained to the 12g, all being well, this week.—Bog Mine: The 60 plunger lift, left by the late company in a very bad condition, is now in first rate trim, and weare preparing to fix the bearers and to drop the bucket lift below the said level. The adit level, east of Bunting's shaft on middle lode, by two men, at 7l. per fathom; lode producing stones of orc of a promising character. The 32, east of the above shaft, by two men, at 7l. per fathom; lode preducing stones of orc of a promising character. The 32, east of the above

we have four pitches, by eight men, at 5t. per ton for lead ore and 20s. per for for blende, and hope to increase the number of pitches regularly from this time forward.

TREVINCE CONSOLS.—John Mayne, July 7: New Shaft: The Wheal Moor and new north lodes afe of though any material alteration since last week.—New Lode: This lode is now fully 5 ft. wide, producing copper, mundic, and gossan, improving every foot it is being sunk upon, and is unquestionably the top of a large course of copper ore. I am much pleased to remark this is one of the best discoveries that has been made in the mine, and seeing that this lode underlies south, and will form a junction with the middle lodes which underlie north, strengthens my opinion of the importance of the discovery.

WEST ASSHETON.—Joseph Garland, July 6: The lode in the 92 west is not so large as it was, being now 2½ ft. wide; it continues to yield stones of lead ore, and to look promising. We have again a sprinking of lead ore in the 70 west. The lode in the trial level under the 40 west has been without ore for the last 3or 4 ft. The stope at this place yields good work. The tribute pitches are yielding about the usual quantities of ore.

WEST CARADON.—N. Richards, July 6: Vivian's north lode, in the back of the 55, will yield 2 tons of copper ore per fathom. The same lode in the bottom of the 33, west of the cross-cut, will yield 1 ton of ore per fathom. The same lode in the rise in the back of this level, east of cross-cut, will yield 3 tons of ore per fathom. There is no change to notice in the 32, driving west of the main cross-course, on Glipin's lode, nor in the winze sinking below the adit level, on this lode, since last week's report. The mine continues to look well.

WEST CREBOR.—John Andrews, July 7: There is no change in the lode in the shaft since last reported on. The engineers are progressing fairly well in putting in the engine, and they hope to get it ready to work in about a month from this time; but, should we get a dry summer I don't think it will b

anoths. In the meantime I have good reason to believe cetter results will allow.

WEST CRAVEN MOOR.—D. Williams, July 7: The Blackhill adit level has een extended east of new Blackhill shaft 160 fms. 5 ft. 6 in. The vein here is ft, wide, and composed of very favourable matrix for the production of lead re. A stope below the level, wrought at 100s, per ton of dressed ore. The new ast shaft is down 7 fms. 8 ft. below the 20 fm. level. We have weighed off a mall parcel of pig lead.

WEST DEVON GREAT CONSOLS.—George Rowe, July 6: During the late he weather our progress in cutting down the new engine-shaft has been very

ore. A stope below the level, wrought at 100s, per ton of dressed ore. The new east shaft is down 7 fms. 8ft. below the 20 fm. level. We have weighted ff a small parcel of pig lead.

WEST DEVON GREAT CONSOLS.—George Rowe, July 6: During the late fine weather our progress in cutting down the new engine-shaft has been very satisfactory, and the lode in both ends of the shaft producing fine stones of ore. As soon as this work is accomplished and the shaft made complete to the bottom, the dividing and easing fitmber will be fixed, and the shaft will be sunk on the course of the lode to a deeper level without delay.

WEST GODOLEHIN.—T. Hodge, F. Hodge, July 5: We have drained the water from 3 fms. above the 30 to 7½ fms. below; all being well the 40 will be dry on Thursday. Shaft tackle for whim will be erected this week, and the capstan and whim engine-house roofed. Our bottom levels are laid over with transport and as we shall shortly reach the bottom all our force will be put to open the part of the p

od stones of tin.
WEST PATELEY BRIDGE.—D. Williams, July 7: The 56 north-west has

been extended upon the new vein a distance of 112 fms. from shaft. The vein here is 18 in. wide, and composed of the usual matrix required for the production of lend ore in profitable quantities. We have two stopes wrought at 120s, per ton of dressed ore. Surface operations are progressing favourably.

WEST VOR.—S. Harris, July 7: I am now come from underground, and am pleased to inform you that the lode in the addt level driving east is full 5 ft. wide, containing mundic, copper, and tin; sufficient of the latter to pay for stamping and returning. I never saw a more promising lode in the district.

WEST WHEAL TOLGUS.—J. Gilbert, July 7: There is no particular change in the mine since our last report.

WHEAL BOYS.—W. T. White, July 6: The lode in the winze sinking in bottom shallow addt appears to improve as we go down, the stuff now raising therefrom being fair work for tin. The lode in the deep addt level driving west is full size of the end, and is producing some good tiestuff. This end is coming in under the winze referred to above, and when communicated will open up a good section of stoping ground. We have a pile of tinstuff broken at the 20, and shall have it drawn to surface as soon as possible. The water is now drained to the 30, and we are now busy in fixing ladderroad, &c. to get to that level, and in my next report I hope to report something good, as the result of our explorations at that depth. The prospects of the mine I consider are exceedingly good.

WHEAL COATES UNITED.—W. H. Martin, July 1: In the 80 west the lode

ation at that depth. The prospects of the mine I consider are exceedingly good.
WHEAL COATES UNITED.—W. H. Martin, July 1: In the 80 west the lode has divided, and is changed in its bearing and underlie. The cnd has continued its regular course, the lode being unsettled the end has got into a horse of killas. To throw more light on the run of the lode I put two pares of men to stope the bottom of the 70 east and wast from winze. The lode continued its regular underlay about 6 fms. below the 70; here a sudden change occurred; one part of the lode has gone south, underlaying very flat, and the other part is gone. By carrying the stope 7 fms. in length, and in some places 15 ft. wide, it has clearly shown the run of the lode. Seeing the south part of the lode unertaying so flat it is my opinion that it is inclining towards the Wheal Kitty lode. We have cross-cut in the horse of killas about 15 ft. altogether. The south cross-cut is letting out more water; driving by four men at 7t, per fathom. The 70 east is driven from slaft 55 fms. 5 ft. The greater part of the lode is composed of red ironstone and capel. We have occasionally met with small patches of gossan, On the foot of the wall there is a little more peach showing; this, in my opinion,

indicates a change. The hardness of the lode very much impedes progress driving by three men and three boys at 10%, per fathom. The 70 west is driven 29 fms. 3 it. from No. 2 winze. I expected during the month to have intersected the great cross-course, but at present it shows no sign. I am pleased to state that the lode shows good indications on approaching the cross-course. We have lately met with several small vughs of gossan containing good tinstuff. Yesteriay we intersected one composed of light blue peach, and very rich for tin; it is a splendid sample, and still continues; driving by eight men at 5%. 10s, per fathom; worth for tin 5%, per fathom. We are pushing on this end with the utmost speed, working Saturday afternoon and Sunday nights. The 50 cast is driven from shaft 30 fms., driving by two men and two boys at 3%, per fathom, and 10s, tribute; worth for tin 5%, per fathom. We purpose next month to take the men that are stoping the back of the 60, west from No. 2 winze, to stope the back of this level. The stopesand tribute pitches are worked by the same number of men and boys as last month, and the produce of tin is much the same. The pulveriser is heaved into its place, and the principal part of the waterwheel is fixed, The work has not been carried on as fast as could have been desired; the carpenter had to attend to the general work. We have stamped a little over 750 tons of tinstuff. The sale for Wednesday next will be about 71% tons of tin.

WHEAL GEORGE —C. Kneedone, July 7; We are now making good next.

ber of men and boys as last month, and the produce of this much the same. The pulveriers is heaved into its place, and the principal part of the waterwheel is fixed. The work has not been carried on as fast as could have been desired; the carpenter had to attend to the general work. We have stamped a little over 750 tons of tinstuff. The sale for Wednesday next will be about 7½ with the could be compared to the general work. We have stamped a little over 750 tons of tinstuff. The sale for Wednesday next will be about 7½ with the could cover 100 tons of the production of the production of the general could have, and showing lead in the cleavages, but have not yet the true rue heading wall. The ground contains considerably more fine, and is, taken altogeter, the most promising ground for the production of lead ore in large quantities that I have yet seen here, and we appear to be on the eve of sale and the produces stamping work. The 176 cast end is worth 8½ per fathom, and letting out more water. The 150 was tend is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and letting out more water. The 155 cast end is worth 8½ per fathom, and the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of said level, is worth 12½ per fathom. Rodda's stope, in the back of the back of said level, is worth 12½ per fathom. Rodda's per fathom 12 per said level, said l

cipally of eapel, quartz, locally not the WiEAL UNY.—Henry Eddy, Win. Prophet, July 7: The 160 west 18 which WiEAL UNY.—Henry Eddy, Win. Prophet, July 7: The 160 west 18 which 10. per fathom, and looks likely to further improve. There is no material change classwhere since our last report.

YORK AND LANCASTER UNITED.—John Borlase, July 6: We have now driven on the Oxclose lode, east of the cross-cut, about 3 fms., and find the lode varies in size from 3 to 7 ft. wide, principally composed of lead, blende, and calamine, with occasional strings of white spathose iron ore, and I am pleased to say the lode in the present end will pay for driving and leave a profit, and I am pusking forward the work at surface for treating the ore. I have resumed the driving of this level on the Barn lode, north of No. 2 sump, where it presents a very masterly and a promising appearance for producing lead in depth. The present end is 5 fms. north of the sump, and I have to-day put the men to cross-cut west to find the Oxclose lode on the western side of this (Barn) lode. I intend this cross-cut to it itersect the lode about 6 fms. west of the junction and out of the influence of the Barn lode, where I have reason to believe we shall meet with as good a lode as we have on its eastern side, and if so it will only be a question of time to get surface dressing plant, &c., ready to make good returns of lead and calamine, and it will prove the mine worthy of considerable and extensive machinery for deep development. We have a fair and increasing demand for barytes, and I am pleased to say our stopes on the Barn lode are producing their usual quantities, and are looking well. We are progressing with the headings, &c., for the new engines as fast as the work will permit.

STEEL-FACED ARMOUR PLATES .- The English Government some STEEL-FACED ARMOUR PLATES.—The English Government some time since decided upon the adoption of what are known as composite armour plates. These are manufactured of iron and steel, each plate having a surface of steel, which, as the result of a number of experiments, is proved to present greater resistance to the shot. Two new war-vessels, the Majestic and the Colossus, are to be covered with these composite plates; and the example of own Government in this direction is being followed by that of France. John Brown and Co. (Limited), Sheffield, have just recived a considerable order for plates manufactured on what is known as the Ellis principle, the plates being intended for a French ship; and it is likely that this order will be followed by one of very considerable extent, as the French naval authorities are understood to be in favour of the general adoption of the new plates.

THE CHLORIDISING PROCESS.—The O'Harra furnace is constructed with the usual materials, and made with two separate hearths, one for desulphurising and the other for chlorodising the ore, both processes being performed at the one operation. The lower hearth—a perfect plane—is separated from the upper, also a plane, by the longitudinal division, which forms the roof of the lower furnace and floor of the upper one. At the end of the furnace where the ore is fed and discharged is a grooved pulley mounted on a shaft, to which power may be applied, as shown. At the other end of the furnace is built an extension or framework, at the outer end of which is another pulley. Around these pulleys passes an endless chain, which completely traverses the furnace, going one way through the upper compartment and the other way through the lower as the grooved pulley is rotated on its shaft. The pulleys carrying the endless chain move from left to right, so that the scrapers on the chain move over the upper hearth from the opening through which the ore is fed, and then back through the lower compartment, thus admitting the THE CHLORIDISING PROCESS .- The O'Harra furnace is constructed and then back through the lower compartment, thus admitting the feeding and discharging of the ore at the same end of the furnace. Attached to this endless chain at proper distances are conveyers or scrapers arranged in a triangle. To the front bars of this triangle are fastened a number of hoes or stirrers at such an angle that they will push the ore on the hearths from centre to sides. On the next triangular scraper hoes are set in an opposite direction, so that they will push the ore on the nearms from control direction, so that they triangular scraper hoes are set in an opposite direction, so that they triangular scraper hoes the outer part of hearth to centre. The triangular scraper hoes are set in an opposite direction, so that they will scrape the ore from the outer part of hearth to centre. The hoes or plates in each alternate scraper are set at opposite angles, so that one set of plates covers up the furrows made by the previous set, thus keeping the ore continually stirred, so that all portions are subjected to the action of heat and chloridising substances, and that it may be thoroughly desulphurised and chloridised as it passes through the furnace. As each scraper with its set of plates or hoes passes through it moves the ore ahead somewhat at the same time that it stirs it over. In centre of extension frame, between the centre portions of the framework, are the pulleys or sheaves which take the weight of the endless chain as it passes out of the furnace. On the outer ends of the two shafts carrying the pulleys on which On the outer ends of the two shafts carrying the pulleys on which the endless chain revolves are two pulleys, over which the scrapers

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INSUR

of the Mining School of Ouro Preto; and statistics of the production of gold in the province of Minas Geraes during 1879. The Noticiario embraces tables and remarks showing the present state of gold extraction in the municipality of Ouro Preto compared with that of 1814; a sketch of the history and curriculum of the Mining School of Ouro Preto; and a notice of the favourable recognition of the School by the Legislative Assembly of the Province, and the grant by two distinct laws of several scholarships tenable at the School. From the first of these notices it appears that the number of workmen of all classes employed in the extraction of gold in Ouro Preto and its municipality in 1814 was 1120, and the extraction was 30,816½ oits. (107 kilos. 856 grammes), or 27 oits, per man per annum, whilst in 1880, with only 79 men, more or less, regularly at work during the year, the gold extracted was 7000 oits. (24½ kilos.), or 88 oits. per man per annum. The oitava may be taken at ½ oz., or 3½ grammes. The executive of the School may fairly be congratulated upon the progress of the institution, and on the utility of the Annaes.

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to-MESSRS. PELLY, BOYLE, AND CO., SWORN METAL BROKERS,

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The Mining Market: Brices of Metals, Ores, &c

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* At the works, is. to is. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, andadd 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—A fairly sound and satisfactory feeling predominates in most branches of the metal traile, the general slight reaction which was perceptible in the various markets at the early part of last week having been succeeded by increased buying, chiefly on account of the retrogressive tendency of prices not being due to any specially unfavourable circumstances, but to the preponderance of speculative sales, not so much for the "bear" account, but owing more to operators preferring to realise their profits wherever practicable. Small fluctuations of this kind do not affect the it. terests of permanent investors, but only those whose resources are weak, and who are consequently obliged to realise on any emergency. Of course, the depression at such a time is further intensified by the action of adverse speculators, whose special mission appears to be to trade upon the fears of others; but the fall in prices, however small it may be, which they thereby create, affords an opportunity of which not only are investors glad to avail themselves, but which also, to some extent, and in proportion to the fall, stimulates regular trade, and gives renewed activity to the mills, plant, and machinery throughout the whole country. Transactions at the present time may, perhaps, be rather limited; nevertheless, they appear to be equally numerous with what is customary at this particular time of the year—in fact, in some instances, a greater amount of business than is usual is being carried through. That which damps the ardour on the part of operators to enter into further engagements partly arises from the Board of Trade returns for the first half of this year, showing, in many cases, a great deficit compared with the corresponding period of last year. Yet apparently this need not cause much anxiety, for setting apart the fact that at the early part of 1830, shipments, much in excess of actual wants, were then effected, it should be remembered that the latter half of that year was characterised with comparatively very limited exp REMARKS.—A fairly sound and satisfactory feeling predominates in most branches of the metal trade, the general slight reaction

firmness, but buyers show great caution in operating, and doubts are occasionally expressed as to whether prices can be upheld for any ength of time at their present figures. The statistical position of ength of time at their present figures. The statistical position of the market last month did not undergo any material alteration, the total visible stock on July 1 being 59,936 tons against 59,978 tons on June 1. Betting apart the period of the great depression of 1879, statistics also show that there is a less actual stock now than on any previous period when the price of Chili bars was as low as is now the case, and in many instances when the stock was much heavier than at present, the price was also in advance of that now ruling. It is also interesting to note that the only time since 1879 that the stock has been as light as at present was on April 1 last, when returns showed it to be 58,557 tons, at which time the price of bars was 61t, and although prices during that period have been lower than what they are now, yet whenever this has been the case public stocks have always been heavier, this being especially so in June, 1880, when the stock was about 65,000 tons and the price of bars about 56t. Therefore if comparisons are of any value holders need have no particular cause for anxiety heavy as the stock at the present time may be.

The only question is whether present circumstances would indicate a similar depression as existed in 1879. Of this, however, there does not appear much probability, for everything just now seems to be tending towards a development

ssion as existed in 1879. Of this, however, there does not appear much bility, for everything just now seems to be tending towards a development trade requirements, while from Chili at least the supplies are being cur-. Nevertheless there is not much chance of any very rapid improvement

in prices, because the stock is still very heavy, and fully sufficient to amply meet all the requirements which are at likely to be wanted during the immediate future, particularly as the supplies from many other sources do not show much likelihood of any speedy reduction. At the public Ticketing, held at Swansea last Tuesday, 376 tons of copper ore of an average produce of 8½ per cent. were sold at an average of 10s. 5½d, per unit.

IRON.—This market continues in a quiet state, prices on the whole keep firm, especially for manufactured, but very slight fluctuations having to be recorded. The statistical position of this metal continues to become more and more unfavourable, and public stocks have now become so enormous that the prospect of realising much improved prices during the immediate future seems very unlikely. Producers may hope that as the bona fide demand is not sufficiently good to absorb the heavy supplies, that speculators may be tempted by the present low prices to make purchases, and thus push up prices at least for a time, but of this there seems some doubt, for low prices are not the only circumstances which induce speculators to make outracts. Statistics are also generally studied, and when stocks are unprecedentedly heavy, and there is apparently no chance whatever of any immediate reduction in supplies, then it is unreasonable to expect that speculative buying will be carried on to any material extent; in fact, the state of the market is now becoming so critical that it is rather questionable whether holders will be able to maintain prices much longer, as the almost inevitable result of excessive and overproduction is repeated, and increased concessions in prices. Although the outlook for sellers is therefore anything but promising, yet for buyers the prospect is much more encouraging, and they should not fall to avail themselves of this extremely favourable opportunity of securing their wants, increasing their orders as much as possible, for were producers to damp down their furnaces for an

324,281 tons for the same period of last year, and 278,502 tons in 1873. The number of furnaces in blast continues at 120, and the public stock has been further increased by 2434 tons, now amounting to 568,347 tons, against 555,913 tons last week.

The imports of Middlesborough pig-iron into Grangemouth last week were 5661 tons, against 5979 tons for the similar week of last year, or an increase of 52 tons, against 5979 tons for the similar week of last year, or an increase of 52 tons, and which makes a total increase for the whole of this year of 35,675 tons. There is less briskness reported on the Cleveland market, which has to some extent been depressed by the return of the ironmasters stocks, which were issued last Toesday, and showed an increase of 547 tons for the month of June, while the stock in Connal's stores has this week increased by 2019 tons, making a total stock in their yaids of 179,333 tons. Makers, however, keep firm in their quotations, and buyers in order to do business have had to pay 375, for No. 3, and 383, to 385, 361. The export trade keeps in a fairly satisfactory condition, the shipments from this district last month amounting to 91,577 tons, those for last week being 19,528 tons of pig, and 9667 tons of manufactured. There is, on the whole, a better feeling prevailing in manufactured, prices keeping very steady, and a stronger demand exists for plates, and prices are quoted at 5t.; bars and angles are selling at abous 5t. 10s., and puddled bars at 3t. 12s. 6d. to 3t. 15s. A satisfactory tone is reported still to exist on the Wolverhampton market, and quotations are for the most part well sustained. Sheets are quoted at 5t. bors and silling at 16s. 5s. to 6t. 10s., while Derbyshire and Northampton pigs show a rise of 2s. 6d. Certain Cumberland hematites have advanced to a similar extent, while Barrow and Tredegarhematites are offering at 65s.

Prices on the Birmingham market continue to display a progressive tendency, an advance having been made in common bars and ordinary sheets at 5

prices with a tolerable amount of ease. Here and there fluctuations have occurred, but this is not surprising when the vast amount of speculative interest in the market is remembered, and as statistics continue favourable, holders will, doubtless, not experience much difficulty in upholding prices. The question of supply and demand is invariably the chief influence which bear upon quotations, and as supplies are, and have been for sometime past, within the requirements of the trade, the prospect for holders certainly seems very bright, notwithstanding the fact that the value of this metal is proportionately speaking much higher than that for any other. The turn of the half-year may, perhaps, have made business slightly more limited than it otherwise would have been, as it is customary for the trade to be quiet at that particular time. The statistics show the stock on the 30th ult. to have been 13,646 tons, against 13,773 tons on May 31, and 13,191 tons on June 30, 1880. The deliveries in London and Holland last month were 1831 tons, against 1710 tons in May, while the shipments during June were 515 tons from Straits and 725 tons from Australia. The stock of all kinds of tin in American ports show an increase of 445 tons, amounting on June 30 to 3195 tons, against 2750 tons on May 31. A public sale of 23,600 slabs Banca is just announced for the 27th inst. at Amsterdam.

LEAD.—This market remains dull, the demand being particularly

LEAD.—This market remains dull, the demand being particularly limited, notwithstanding that the present low prices

favourable to buyers.

SPELTER.—This market remains void of activity, and there is but little disposition manifested on the part of buyers to make pur-chases, although prices here are still said to be much under those ruling on the Continent.

STEEL.—In this metal quietude prevails, and prices for all descriptions are nominally unchanged.

TIN-PLATES.—This market is entirely featureless, prices being unaltered and the demand unimproved.

unaltered and the demand unimproved.

QUICKSILVER.—The importers of Spanish raised their price on Monday to 6l. 7s. 6d., and again on Tuesday to 6l. 10s. There has been active speculative enquiry, but not much demand for export, nor does an improvement in this respect appear likely, inasmuch as the Californian market is without alteration, notwithstanding the advance here. The exports last month were 1413 bottles, and for the six months ending June 11,453 bottles, or at the rate of about 23,000 bottles per annum, so that, with even the most liberal estimate for home requirements, the consumption remains considerably below our average yearly receipts of 48,000 to 50,000 bottles.

Very little change has taken place in the MINING SHARE MARKET since our last; business has been dull, and quotations for the most part are only nominal. Among the mines dealt in have been Dolcoath, Wheal Agar, East Blue Hills, South Frances, Wheal Crebor, Prince of Wales, Roman Gravels, Tankerville, English Australian, East Pool, and a few others.

East Pool, and a few others.

TIN.—Scarcely had our remarks of last week appeared in print than the smelters reduced the standards for ore 2l. per ton, and tin shares became weaker all round. Tin, however, is firmer, and the market has a better appearance at the close.

Blue Hills, 3 to 3½; Cook's Kitchen, 16 to 17; Carn Brea, 23½ to 24½; Dolcoaths have advanced from 55 to 59½, 60; East Blue Hills, 4 to 3. This mine continues to improve

\$ to \$\frac{3}{2}\$. This mine continues to improve.

South Condurrow, 9\frac{1}{2}\$ to 10; South Frances, 15 to 15\frac{1}{2}\$; Tincroft, 17 to 17\frac{1}{2}\$; Wheal Agar, 13\frac{1}{2}\$ to 14; Wheal Basset, 4\frac{3}{2}\$ to 5\frac{1}{2}\$; Wheal Grenville, 7\frac{1}{2}\$ to 8\frac{1}{2}\$. West Basset, 14\frac{1}{2}\$ to 15\frac{1}{2}\$; at the meeting next week a dividend of 5s. per share is expected. Wheal Kitty (St. Agnes), 2 to 2\frac{1}{2}\$. West Peevors have declined to 14\frac{1}{2}\$, 15. Wheal Peevor, 17 to 18; Wheal Uny, 2 to 2\frac{1}{2}\$; Wheal Elizabeth, \frac{3}{2}\$ to 1; Drakewalls, par to \frac{1}{2}\$ prem.; Kit Hill, \frac{1}{2}\$ to \frac{3}{2}\$ prem.; Mount Carbis, 35s. to 45s.. North Busy, 10s. to 15s.; call paid. Phonix, 4 to 4\frac{1}{2}\$; Polrose, \frac{3}{2}\$ to 1; East Pool, 37 to 38; East Lovell, 1\frac{1}{2}\$ to 2. West Kitty, 4\frac{1}{2}\$ to 4\frac{3}{2}\$; the 60 east is reported over 1 ton of tin per fathom. The rise above the 60 25\frac{1}{2}\$. New Kitty, 1\frac{1}{2}\$ to 1\frac{1}{2}\$; West Polbreen, This mine continues to improve above the 60 251. New Kitty, 15 to 17; West Polbreen,

COPPER has been firmer during the week, but not much business doing in copper mines. At the Cornish ticketing on Thursday, there was no alteration in the standard. The average price of the ore sold was 31. 7s. 6d. per ton. Wheal Crebor, 3½ to 4; at the meeting held on Tuesday, the accounts showed a profit of 13051. 18s. 5d. on four months' working, and assets over liabilities, 19861. 11s. 3d. The copper ores sold realised 32381, mundic, 2021. 2s. 6d. A dividend of 2s. 6d. per share were declared payable on the 29th. The report, which will be found in another column, was considered very favourable. Gunnislake (Clitters), 3 to 3½; at the meeting, the accounts showed a profit of 2501. on four COPPER has been firmer during the week, but not much business

months' working. The copper ores sold realised 4702*l*.; assets, 1559*l*.; liabilities, 1003*l*. No dividend was declared. Bedford United, $1\frac{1}{5}$ to $2\frac{1}{5}$; Carnarvon Copper, $\frac{7}{5}$ to $1\frac{1}{5}$; Devon Great Consols, $9\frac{1}{5}$ to $9\frac{3}{5}$; Devon Great United, $1\frac{1}{2}$ to $1\frac{3}{4}$; Gawton, 20s. to 25s.; Mellanear, $4\frac{1}{2}$ to 5.

| South | Sout

The Market for Mine Shares on the Stock Exchange has been chiefly affected by the fall on Tuesday in Indian descriptions, but with the exception of gold companies shares there has been no material variation in price. With regard to home mines, the fact that the standard for ores was not put down yesterday, although copper has been decidedly weaker, is regarded as an encouraging feature for mines producing that metal. Since Tuesday there has been a gradual revival, and the market closes considerably stronger. Indian Gold Mine shares experienced a very heavy shock on Tuesday.

copper has been decidedly weaker, is regarded as an encouraging feature for mines producing that metal. Since Tuesday there has been a gradual revival, and the market closes considerably stronger. Indian Gold Mine shares experienced a very heavy shock on Tuesday, when a telegram confirmed the fact hinted at last week in this place that the Glasgow Indian Gold Mines Company had obtained but 2 ozs. of gold from 19 tons of quartz, or little over 2 dwts. to the ton—a yield which certainly would not pay the cost of working. This adverse telegram revived the feeling that the executive had at the time they were creating the new capital something stronger than an idea that the reported yield of 4 ozs. per ton was from 1 ton only. The result has been only that which was to be expected. The 10% shares, which a few weeks since were quoted 55%, have been dealt in as low as 20%, and although they have since recovered 5% or 6%, it is very generally thought that in the course of a few weeks par will be readily accepted. But it must be distinctly recollected that thesee perimental yields, as has been already pointed out, prove nothing, whether they show 4 ozs. or 2 dwts. to the ton. This is evident when it is considered that 6 ozs. from 20 tons (which have actually been obtained) would leave a profit, and with the addition of what is left in the tailings, and can easily be got outgood profit. Trials are good as a qualitative test for gold, but the existence of the precious metal being proved, the only reliable quantitative test is a full month's run, and the treatment of at least a few hundred tons of stuff. The shareholders' prospects of profit are quite as good now as when the shares were at their highest premium. In the case of Harris v. Fleming, the examination of Hamilton Maxwell has been taken, and his cross-examination concended during next week. The closing quotations for the principal shares of the principal shares of the inclusion of the profits, but he concluded during next week. The closing quotations for the princ

concerns, and work the properties and businesses of the Blue Tent Hydraulic Gold Mines and Fall Creeks Lakes Water Company. The purchase money is 110,000L (of which 74,000L is taken in fully paid shares, and 36,000L in cash), and the new company takes over \$7,100L debenture debt redeemable 10,000L on Jan. 1, next, and the remainder on May 1, 1885, before which time it is anticipated that by reason of the increasing yield and value of the property, the debentures can be paid off or renewed on more favourable terms than the present debentures. It is mentioned in the prospectus, which will be found in another column, that the Blue Tent Company has been engaged since the latter part of 1873 in building canals and reservoirs, and in developing the property generally. During this time the total produce of gold has been 122,000L sterling, of which \$1,000L was from the South Yuba bank alone; and the whole of this amount (after defraying working expenses and the necessary charges for interest on debentures and loans) has been expended on permanent improvement of the property. A new tunnel of large size is nearly completed to the face of the South Yuba bank (only 340 feet romaining to be driven), through which the rich bottom gravel in the centre of the property will be washed off. The property will then be in full working order, and of the value, according to Mr. Thomas Price's estimate, of 183,750L. The Fall Creek Company's canal is eight miles in length, and brings water from the company's lakes to the head of the Blue Tent Company, cover an area of 200 acres, and their storage capacity can be largely increased. The Fall Creek Company has, out of the profits earned by the sale of water and lumber to the Blue Tent Company, paid in 1879 and 1880 a dividend at the rate of 5 per cent. The New Callao, with a capital of 75,000L, in shares of 1L each, The New Callao, with a capital of 75,000L, in shares of 1L each,

company.

The New Callao, with a capital of 75,000*l*, in shares of 1*l*, each, has been formed to purchase for 30,000*l*. (half in cash and half in fully-paid shares) one-fourth of a property in Venezuela, which may almost be said to have been obtained by conquest with the option of purchasing the remaining three-fourths, or 750 acres. It will be seen from the prospectus in another column that when he discovery was made the military had to be called out to give possession to the covery. purchasing the remaining three-fourths, or 750 acres. It will be seen from the prospectus in another column that when the discovery was made the military had to be called out to give possession to the owner, who writes:—"You will be surprised and amused to hear that I had to call the military to my assistance to enable me to obtain possession of my property at New Callao. When the engineer returned to the property he found it in the possession of a mob of excited diggers, who had made a rush there when the discovery was made, and so impressed were they of the great value of the place that they told my engineer that if he attempted to take possession they would shoot him. He accordingly had to return, and I was obliged to apply for an escort of soldiers to enable me to drive off the surpreys. This, at all events, shows that others besides ourselves are cognisant of the value of the property." Mr. Robotham, late surveyor and mining captain of the El Callao, asserts that the New Callao will prove a richer mine than the El Callao, and he has accepted the managership. The El Callao, with an original capital of about 50,000%, has paid in dividends

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uring the last four years upwards of 150,000. per annum. Mr. Robotham eports that at a depth of 25 ft. the shaft encountered a vein 5 ft. in thickness. leveral assays have been made with 2 to 2½ ozs. of gold to the ton, although everal assays have been made with 2 to 2½ ozs. of gold to the ton, although or the reason of their extent, other quartz veins traversing them, but to this ate I have not had time to explore them; in fact, with a knowledge of a vein of toss, per ton on the property, I rest and am contented. The facts put forward is support of the value of the enterprise are that there are three discovered lodes in the property from 5 to 6 ft. in breadth, besides leaders in between, which is a most favourable mineralogical feature. There are strong Indications of four other lodes on the property, and the ore is identical in character with that of the celebrated Callao Mine, which has returned over 2,600,000. sterling. No earn machinery will be required, as a swift river equal to driving 40 heads of amps flows at the base of the range containing the lode, and it is added that ent profit in working 40 heads of stamps would be very large, basing the callation at 2 ozs. of gold to the ton, but the directors desire to be well within the mark, and taking the returns at only 1 oz. to the ton (while the Potosi, in the xx months of last year, gave 3 ozs.) the profit on crushing 120 tons of quarts per sy (which the 40 heads could easily do), after allowing a very liberal cost, and iculating of 300 working days to the year, would be over 45,000L, or over 60 per ont. on the entire capital of the company.

Mount Carbis, 3½ to 3½; it is stated that they will soon resume working on the course of tin at the 27, which was only left off while fixing the engine and machinery. The prospects here and at the other points of operation are condered good. The mine is one of the most promising in the neighbourhood.

Kapanga, § to ½; a telegram received during the week announce that men have been put on tribute in the Golden Point

the Golden Point ground, recently acquired, increases the value of the property very considerably.

Richmond, 16 to 16½; the furnaces being shut down no telegrams of production are being received. The manager (June 16) reports many favourable points of operation. The repairs to the machinery or furnaces are being pushed on as fast as possible. The engine foundation was completed, and the frame would be put on that day. Ruby and Dunderberg, 7½ to 7½; the telegram received this week is considered fully to maintain the expectations formed of this concern. The shipments to the furnaces are large, 264 tons (upwards of 1000 tons for the month), and ample promise is given of still larger shipments as the work progresses. The quantity smelted was 266 tons, producing base bullion of the standard value of \$14,000. A new furnace of greater capacity, and constructed on approved modern principles has been commenced. The usual weekly report is satisfactory, and points to the attainment of the objects sought in the large prospecting works in the Dunderberg, which have been carried on during the last nine months. The Bullwhacker Mine, too, is developing favourably. Large shipments of smelting ore may be expected at no distant date.

distant date.

California (Colorado), 1½ to 1½; the telegram received on Thursday anys:—"Fourth July holidays makes a broken week; cannot get full week's run before thirteenth. Plenty of ore. The ten, eleven, twelve, and thirteen hundred levels are looking finely."

Placerville, 2½ to 2½; the 600 ft. level is improving as developed, the quarts at present showing abundance of massive free gold. The engine-shaft is now down to the 700 ft. level. The annual meeting will be held on Tuesday. will be held on Tuesday,

engine-shaft is now down to the 700 ft. level. The annual meeting will be held on Tuesday.

Michipicoten, 1½ to 1½; very satisfactory news has been received from Capt. J. Opic, the company's agent at the mines. His report states that the night shift men had cut out one piece of about 4 lbs. solid weight of copper, and another of 6½ lbs. solid copper, pure metal. The lode is now opening out, and glitters in many places with the metal. The works are developing in the most satisfactory manner. Capt. Opic was inspecting the mines on the south shore—the Calumet and Heela, and others.

Devon Great Consols, 9½ to 10½; the monthly sampling is 808 tons of copper ore and the ends driving are reported as very promising. Devon Great United, 1½ to 2; as will be seen by 'he agent's report satisfactory progress is being made. Kit Hill, 20s, to 22s. 6d.; the dit level driving is progressing, and the discovery of tin at the quarry is looking most promising. Drake Walls, 20s. to 22s. 6d.; the water is coming out of the adit end more rapidly, consequently the draining of the mine is likely soon to be cleared. South Devon United, 1½ to 2; the ends driving are improving, especially in the 110 east, where the lode has improved to 30½ per fathom.

The new Diamond Mining Companies, although they have not had such a hearty reception from the public as was wished, will, it is undergrees by which they are heing placed upon the market and full contents.

The new Diamond Mining Companies, although they have not had such a hearty reception from the public as was wished, will, it is understood, proceed to allotment in consequence of the action of the syndicates by which they are being placed upon the market, and full confidence is felt by the promoters that public support will hereafter be obtained for enterprises of this class. The receipt in this country of the Kimberley Central Mining Company's report and accounts for the first year's operations since the company was formed by the combination of individual propertions affords ample opportunity for capitalists to judge for themselves of the attractiveness of diamond mining as an investment, since not only can the relative costs and returns be ascertained, but the Kimberley Central, being one of the largest and most prosperous on the fields, the average value per carar of the diamonds will fairly represent the average of all the properties, and all other matters can be fairly calculated. During the quarter ending April the diamonds will fairly represent the average of all the properties, and all other matters can be fairly calculated. During the quarter ending April the diamonds policid, (20,681 carats) realised 30, 2182, 108., and the total outlay during the same policid, including rates and licenses, wages and commission, cartage, water, and general expenses, whe 24,6812, 7s. 3d., leaving a net profit of 55374, 10s. 9d., or over 22,1504, per annum. The company is in a prosperous condition, having a balance at bankers of 42,1442, 3s. 6d., to meet bills payable, 41,3352, 10s. 3d. The amount of capital entitled to dividends is 576,3604, and there is a fair quantity of unwashed diamondiferous soil jon surface. During the year 89,8144 carats of diamonds were soild for 138,9332. 10s., or 12. 10s. 114d, per carat, taking large and small together; the average price per carat realised in each the during the surface of the public and surface of the year, being—First. 16, 16s. 4½d.; second, 17. 11s. 9½d.; third, 12. 10s.

In lead mine shares there has been but little business done. There a growing feeling that lead ores will soon realise better prices. and these are really wanted to create activity in the shares. Van, 9 to 10; a discovery of considerable importance has been made in the 120 west, where a lode has been cut worth 15*l*. per cubic fathom, and widening as opened upon. Capt. Williams reports that he is most of all pleased with the appearance of the lode, which indicates further improvement.

nt. forth D'Ereaby, 1 to $1rac{1}{3}$; the agent reports that the lode in the shaft concest to improve in character and productiveness, now worth $rac{1}{3}$ ton of lead ore

er fathom.

Goddard's Lead, 1 to 1½; it is stated that good progress has been made in inking the shaft, 4 ft. having been sunk during the past week. The lode is imvoving, now valued at 9 cwts. of lead to the fathom.

Pantymwyn, 1½ to 2½; the 22 west of Modlyn shaft still continues easier for riving, with more ore throughout the forebreast.

The Imperial Bank directors' report.

driving, with more ore throughout the forebreast.

The Imperial Bank directors' report, to be presented at the meeting on Tuesday, states that after payment of interest on deposit and other accounts, and providing for bad and doubtful debts, the balance of profit amounts to the sum of 49,445. 13s. 5d., deducting from this amount the current expenses and rebate of interest on bills discounted not yet due, there remains for appropriation 31,306. 11s. 3d., which it is proposed to apply —23,625t. to the payment of a dividend at the rate of 7 per cent. per annum, free of income tax, and a balance af 1881t. 11s. 3d. to be carried to the credit of profit and loss new account. The dividend will be payable on and after July 19.

The list of applications for shares in the Turin Waterworks will close this day (Saturday).

The last of appreciated and the debentures of the Australian Mortgage Land and Finance Company, due on Friday next, will be paid on and after that date the Royal Bank of Scotland, Bishopsgate-street Within. Warrants for the nerest due the same date on the Four per Cent. Debenture Stock will be posted

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. Webs and Co., of the Stock Exchange and Finch-lane, has been in British, 32½; Bahia, 17½; Bombay, 6; ditto new, 1½; Continental Union, 21½ to 22; ditto, new, 14½; Commercial, 187; Cagliari, 1½; European New, 23½; Gaslight, A, 173½ to 179½; C, 10 per cent. 222; D per cent., 220; H, 7 per cent., max., 133 to 135; 4 per cent. deb., 103½; Imperial Continental, 190 to 191; London 190½ to 192; Monte Video, 14½; Driental, 7; Rio de Janeiro, 24½ to 25½; South Metropolitan, A, 206½ to 207; ditto, B, 177½ to 178½. Gas stock steady, little doing. For closing prices see list on the last page of Journal.

list on the last page of Journal.

INSURANCE SHARES have, according to this evening's report of fessrs. W. L. WEBS and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Atlas, 19¼; Alliance Marine, 20; City of London Fire,

TRAMWAYS.

Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, 5. Birchin-lane, writes:—Opening: Buyers are not coming forward to secure Trunks after yesterday's crushing fall. The Ordinary are offered at 20% and the Third at 45%. For the latter this is a fall of 3½ from the highest of last account. Reading shares are \$30 and Eries \$47. Turks remain steady at 15% to 16. A fall of 3½ has taken place in Sheffield Ordinary. The mining market continues to be overwhelmed with selling orders, the majority of which cannot be executed. Frequently a third of the quoted price would be accepted, and more frequently cannot be got. Glenrock, 13½ to 13½. South Indian Gold, 13½ to 2. Devon Consols, 9 to 93½. Van, 9 to 10.—Closing: Considerable business has been done in Unified at 79 but the price has now relapsed 3½. Trunk Thirds and Seconds are 3½ higher than at the opening, but have been better. Ruby, 73½ to 75½; Potosi, 1½ to 13½; Pestarena, 4s. to 6s.; Port Phillip, ½ to 3½; Yorke Peninsula (pref.), 10s. to 15s.

Messrs. Pixter and Abella.—Gold: The only arrival to report this week is

Peninsula (pref.), 10s. to 15s,
Messrs. Pixley and Abell.—Gold: The only arrival to report this week is
the Potosi, from Australia, with 4000/. The demand for the Continent and India
has been good, and the amount left on the market from previous arrivals have
been taken for export. The only withdrawal from the Bank has been 12,000/. in
sovereigns, for Lisbon. The P. and O. steamer takes 30,000/. to India, and the
Para 19,000/. to the West Indies.—SILVER: Under the impression that the result
of the meetings of the Conference would be satisfactory a good demand for silver
set in during the week, and prices improved materially—\$2\found{4}/6. have been paid.
Such a sudden rise has been followed by a reaction in rates, and a decline to
51\found{4}/d. has taken place, at which price a small amount has been done. The arrivals comprise 54,400/. from New York, and 48,310% from Buenos Ayres, amounting to 102,710%. The P. and O. steamer takes 48,000%. to India.

At Swansea Ticketing, on Tuesday, 976 tons of ore of 81 average produce, and containing 79 tons 16½ cwts. of fine copper, were sold for 4275l. 11s. 6d., being 4l. 7s. 7d. per ton of ore, 10s. 8½d. per unit, or 53l. 11s. 2d. per ton of fine copper in the ore, and an average standard of 79l. 12s. 3d. for 9 per cent. produce. Subjoined are the particulars of the two last sales:—

Standard of 73. 128. 3d. 107 3 per cent. produce. Subject are the particulars of the two last sales:—

Date. Tons. Standard. Produce. Per ton. Per unit. Ore copper May 31 ... 1838 ... £82 2 6 ... 7½ ... £4 0 6 ... 11s. 0½d... £55 3 7 July 5 ... 976 ... 79 12 3 ... 8½ ... 4 7 7 ... 10 8½ ... 53 11 2 Compared with the last sale, the decline has been in the standard of the standard 21. 10s., and in the price per ton of ore about 4s. 1d. The burnt ore gave a produce of 2 5-16, and realised 5s. 5d. per unit; Berehaven, produce 7\frac{3}{5}, per unit 11s. 2\frac{1}{2}d.; Virneberg, produce 11\frac{3}{5}, per unit 11s. 5d.; Italian, produce 14\frac{1}{5}, per unit 11s. 2\frac{1}{3}d.; Tan-y-Bwlch, produce 16 3-16, per unit 11s. 5\frac{1}{2}d. There will be no sale on July 19.

At Redruth Ticketing, on Thursday, 893 tons of ore, of $6\frac{3}{4}$ average for 3008l. 9s. 6d., being 3l. 7s. 6d. per ton of ore; 9s. 11½d. per unit, or 49l. 16s. 2d. per ton of fine copper in the ore, and an average standard of 90l. 9s. for 9 per cent. Subjoined are the particulars

ENGLISH-AUSTRALIAN GOLD MINING COMPANY.—A full report of the proceedings of the general meeting, held on Monday at the offices, 8, Austin Friars, will be found in another column. We would draw special attention to the able and exhaustive speech of the Chairman (Mr. John Schofield, one of the oldest and most respected members (Mr. John Schoneid, one of the oldest and most respected members of the Stock Exchange). The total capital of this company is only 22,000l., out of which the purchase was paid—chiefly in shares—and the balance has been available for working expenses. This shows a very great contrast to the capitals and purchases of the numerous Indian speculations which for some time past have dazzled the imagination of a large portion of the public. Omne ignotum pro mirifico! But it is not only in these respects that the great difference exist. In the next year the English payers labyer and page 1, 250 eye of But it is not only in these respects that the great difference exists. In the past year the English-Australian have sold nearly 1500 ozs. of gold, which have yielded a profit of 630t, though from interruptions during the erection of machinery, &c., the mill ran only 220 days, or an average of 17 days, instead of 23t days, a month, otherwise a much better result would have been shown. This disadvantage is not likely to be experienced in the current year. It should be borne in mind that the whole of these results were obtained with only 15 heads of stamps, but when a greater extent of productive ground is opened, a larger number of stamps will have to be employed, and with more a larger number of stamps will have to be employed, and with more than proportionate profit, as the dead expenses will not be increased. Some splendid specimens of quartz containing large nodules of free gold, recently received from the mines, were exhibited at the meeting, and judging from the gold visible, the chairman estimated them to be worth at the rate of at least 2000l. per ton. This is far beyond even the 4 ozs. of the Indian experiment on 1 ton of quartz, and shows what can be produced from small, and probably selected, crushings. But even the Indian workings have already forcibly proved the danger of relying on very limited trials, for it is now stated that 19 tons have yielded in the aggregate only 2 ozs., or at the rate of about 2 dwts. per ton! The average of the English Australian total crushings is more than double that, and it is hoped that by carefully looking into the efficiency of the machinery used, and adopting improvements, the present average yield may be increased. fully looking into the efficiency of the machinery used, and adopting improvements, the present average yield may be increased. With this view, the directors have just received samples of the quartz and of the tailings, which are to be carefully analysed, and when this is done they will be able to form definite conclusions and act accordingly. We cannot conclude our remarks without noticing the thoroughly practical and business-like manner in which the affairs of this company are conducted, and the spirit of economy which evidently pervades its expenditure. After all said and done, perhaps the most wonderful thing is that English-Australian shares are only about par!

YUBA RIVER GOLD-WASHING COMPANY.—This company has been formed for the purpose of working the amalgamated properties of the Blue Tent and the Fall Creek Companies. It may not, therefore, be now out of place to mention a few of the salient points concerning the company. The main conditions for successful hydraulic operations are (1) plenty of rich auriferous gravel, (2) a good supply of free water, (3) a good outlet, (4) abundance of grade and (lastly) ample dump for the rapid disposal of tailings. All these conditions are to be found in the combined properties. The company possess nearly 500 acres of the richest gold-bearing gravel in California. They sown lakes and water rights, which at present can supply free water for many months during each year, and which, with the improvements contemplated and allowed for in the capital, will furnish free water perennially. They have, perhaps, the best with the improvements contemplated and allowed for in the capital, will furnish free water perennially. They have, perhaps, the best outlet of any similar description of property in the State, and this carries with it the last two conditions mentioned, abundance of grade and ample dump. The operations during past years have been mostly those of development, though even then the profits have been considerable, and have with rare steadiness and foresight been taken and expended in opening the property, thus bringing it to its present satisfactory condition. One of the principal works undertaken by the company has been making a large canal for the purpose of bring water to the gold-bearing gravel at a cast of over 40,0007. making a large canal for the purpose of bring water to the gold-bearing gravel at a cost of over 40,000. This canal is nearly the size of the New River in London, and carries about the same volume of water. This great outlay will in the future be of the very the size of the New River in London, and carries about the same volume of water. This great outlay will in the future be of the very greatest service to the company, as will be apparent when it is remembered that the canal will carry about 1600 in. of water every 24 hours, the use of which will produce about \$1000 every full working day, taking the return at 60 cents per inch of water used, and ing day, taking the return at 60 cents per inch of water used, and this return can be considerably augmented when the bottom gold gravel is washed, as hitherto the workings have been mainly confined to dealing with the upper stratum, leaving the bottom and richer strata to be dealt with. This bottom gravel will be washed as soon as the tunnel now in course of driving by machinery is finished, and it is expected that it can be brought into use in the course of the coming month. The canal will then supply water for 200 working days at least in the year, and estimative the return to the coming month. days at least in the year, and estimating the returns to be only 60 cents per inch of water used, though the top gravel has hitherto given a higher return than this, it would result in a yield of \$288,000 per annum, and taking 45 per cent., the average of the last five

years' working, the net profit would be \$129,600, or (say) the sum of 26,400\(\text{i}\), Fire, 4\(\text{i}\) to 4\(\text{i}\); Guardian, 80\(\text{i}\) to 81\(\text{i}\); London and Provincial Marine, 5\(\text{i}\); London, 66\(\text{i}\) to 67\(\text{i}\); London and Provincial Marine, 5\(\text{i}\); Rock Life, 8\(\text{i}\) to 81\(\text{i}\); Royal Exchange, 414. Insurances shares firm, sally Marine. For closing prices see list on the last page of Journal.

RAMWAYS.—The closing prices of this evening, as quoted by Mr. BRAWAYS.—The closing prices of this evening, as quoted by Mr. BRAWAYS.—The closing prices of this evening, as quoted by Mr. BRAWAYS.—The closing prices are list on the last page of short of Tokenhouse-yard, are given in tabular form in the 12th page of sall.

ALLWAY AND GENERAL MARKETS.—Referring to the course of sall water supply so as to take the fullest advantage of the rich ground water supply so as to take the fullest advantage of the rich ground water supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply so as to take the fullest advantage of the rich ground supply supply so as to take the fullest advantage of the rich ground supply possessed by the company. It will be seen from the foregoing that the company comes before the public in a very different position from any lately introduced, inasmuch as the concern is already pro-ductive, and needs only the introduction of the new capital to make t equal to any mining company now represented on this market, especially as the entire capital is small when the magnitude of the concern is taken into account.

PANDORA.—The new lode in the shaft below the 45 is proved to be full 10 ft. wide, and worth about 1 ton of ore per cubic fathom. Other parts of the mine are looking well.

DEVON FRIENDSHIP.—They have again for sale 50 tons of No. 1 quality arsenic, and in addition 30 tons of inferior quality. The rospects of the mine continue very good.

SORTRIDGE .- The gossan lode contains more copper and mundic than it has yet done, and the agent is strongly of opinion that he will soon report a rich lode. The directors have resolved to confine the operations at present to developing this part of the mine, and to defer operations on the tin lode.

GLENROY.—They have begun to sink the shaft below the 122 fm. evel. The stope in the back of the 25 continues to yield some nice lead and blende

TANKERVILLE GREAT CONSOLS.—There is a favourable report from the manager this week, which will be found in another column. At Pennerley they expect to drain to the 120 fm. level this week. At Bog they have reached the 60, and in this mine they have already several tribute pitches at work, which will be increased.

EAST ROMAN GRAVELS.—The general meeting was held on the mine on Wednesday, and went off satisfactorily. They intend to cross-cut to the great lode, which is the east lode in Roman Gravels, in which mine it is profitably productive. This, it is believed, will greatly add to the value of East Roman Gravels. From the present workings lead and blende have been sold in the past year to the amount of 4650l. In a few weeks it is expected that the boring machinery will be at work, which will enable the levels to be driven more rapidly, and lead to increased returns, and, it is hoped, good profits. The balance of assets over liabilities is 1291l., besides upmore rapidly, and lead to increased returns, and, it is hoped, good profits. The balance of assets over liabilities is 1291\(lt.) besides upwards of 1000\(lt.) to call up on the shares issued, and further shares in hand available for issue if required. The prospects of this mine are exceedingly good, and the results of the current twelve months are likely to be much more favourable than the past.

CAPPER PASS AND SON, BRISTOL.

ARE BUYERS OF LEAD ASHES SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c

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cent.

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money in this undertaking, which producing industry.

English investors who desire to purchase shares may deposit the purchase money with the Union Bank of London, to the credit of Preston, Kean, and Co., Bankers, Chicago, for the use of the Rico Silver Mining Company, and advise me, by letter, of having made the deposit, stating the number of shares wanted, and the name and address of the person to whom the certificate is to be issued.

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stamped or finely crushed minerals, termed fine sands and slimes. The primary condition for separation of mineral particles differing in specific gravity is that they be free to move in a fluid medium. Air fulfils this condition; water, on the contrary, will pack fine particles together, forming a cake or a paste, which explains the more rapid and more complete separation in air. The multiplication of processes and of machines indispensable in the water system is consequently avoided, with the losses that attend it.

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Motices to Correspondents.

Coccived,—"G. J. N." (South D'Eresby Mountain)—"Å. E. J."—"Verdad" (Ouro Paeto)—"B. G."—"G. H. P." (Dublin)—"Constant Reader" (Manchester)—"Shareholder" (When Russell)—"Chemist: "We shall be glad to have the particulars—"W. P."—"D. N."—"Shareholder" (Gunnislake, Cittlers)—"J. L."—"A. T."—"An Old Shareholder" (Sortridge Consols)—"W. N. G.: "We shall notice the matter in next week's Journal.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, JULY 9, 1881.

FATAL ACCIDENTS FROM "FALLS" IN MINES.

FATAL ACCIDENTS FROM "FALLS" IN MINES.

The deepest attention is paid to deaths from explosions in mines by Parliament and the public, yet no notice whatever is accorded to that class of so-called accidents by which the greatest number of lives are annually lost in the working of mines. During the last 11 years 4917 persons were killed by falls of roof and sides, and 2871 by explosions of gas. The latter evoked a large amount of public sympathy, large sums of money having been subscribed for the relatives of the killed, but no one scarcely ever heard of money being given towards the maintainance of the larger body of sufferers—those whose husbands and fathers were killed by "falls." These accidents, if such they may be called, do not produce more than one or two deaths at a time, and, therefore, do not attract attention, but when the list comes to be made out at the end of the year it is then seen that "falls" are the most prolific source of danger. It may, however, be said that most of the fatalities from "falls" are really preventable, and that the miner is the cause of his own death. Many of them become so imured to danger that they will run the greatest risks for the purpose of getting a trifle more money. The getting of minerals is what the miner looks to as being to him directly remunerative, whilst timbering brings him no money value in return for the labour expended in supporting the roof, he is, therefore, induced to pursue the former most vigorously and neglect the other, unless the danger is very clear and unmistakcable.

In the North of England in the coal mines the setting of timber is done by persons specially appointed for the purpose, and the result is that fewer persons are there killed from falls than in any other part of the kingdom. We, therefore, think that the same system should be worse generally adopted, or that the workmen should be visited at stated times by persons in authority to see that the miners were not neglecting their own safety. At the surface men require to be looked after t The deepest attention is paid to deaths from explosions in mines

laid down as an absolute rule that no overhanging stone which might become loose should be left unsupported or unremoved, and when broken and rotten timber requires replacing by what is good and sound it should be selected from the stock at the surface. Miners should not be allowed to cut and prepare timber, and convey it into the working places. Timber should never be drawn where the operations would be attended with any degree of danger. Were these rules carried out there would be a great decrease in the annual list of "deaths from falls," and it is to be hoped some means will be adopted for their enforcement in the interest alike of workmen and employers.

RESSEMER COPPER.

BESSEMER COPPER.

In connection with the production of steel the system of Bessemer has been the most important event of the age, and it now appears it can be adopted for other purposes equally advantageous. It is now stated that pure copper can be extracted from the ore by means of the Bessemer process, and the start, singular to say, has been made at Lyons. It appears, according to the Reveu Industrielle, that whilst engaged in melting down some old copper a piece of phosphorus bronze by some means or other found its way into the molten mass, when the chief of the department, who was engaged watching the operation, was surprised to see the phosphorised metal, when exposed to the heat, increase in temperature far beyond that of the surrounding copper, and ultimately arrive at a dazzling white heat. The phosphorus whilst burning disengaged a vast amount of heat, which soon liquefied the copper. The first effort was simply made to burn off the sulphur combined with the metal in the form of pyrites, by means of a powerful blast. The difficulty which presented itself appeared to be towards the end of the process, the charge having always been cooled down too much by the operation, but that was overcome in the manner we have described. In studying the order of combustion in air of the substance capable of being mixed with pyrites it was found that sulphur burnt first, then certain other metals, and less to fall the phosphorus. with pyrites it was found that sulphur burnt first, then certain other metals, and last of all the phosphorus. It would thus appear that phosphorus, the greatest enemy known to the iron and steel maker,

may be made a most valuable friend and agent to the copper maker, for it would seem that all that was really necessary in order to prolong to any length the Bessemer operation in copper refining is simply to add a small quantity of phosphorus to the charge, and thus obtain, after the combustion is complete and finished, a cake of pure copper. The process, if so successful as it was stated to have been, would to some extent affect the price of copper, but it would be most valuable to companies engaged in raising copper ore, which could easily be smelted where it is worked. It is stated that a company has been formed at Lyons for the purpose of carrying out the new process, and make are being laid down for the purpose, so that those conor smelted where it is worked. It is stated that a company has been formed at Lyons for the purpose of carrying out the new process, and works are being laid down for the purpose, so that those connected with copper mines in this country will, no doubt, hear more of it. Many of the most important inventions in connection with metallurgy, engineering, and mechanics have in the first instance been the result of accident, and the one we have alluded to may be another to add to the number. We shall therefore, look forward to. another to add to the number. We shall, therefore, look forward to hearing more as to the Bessemer system being applied to copper, and it is to be hoped with as much success as it has in relation to

THE COPPER TRADE.

During the quarter ending June 30, 1881, the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 9455 tons, which contained 602 tons 15 cwts. of fine copper, and realised 29,7981. 16s., being equal to an average of 31. 2s. per ton of ore, and 491. 8s. 10d. per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swaysee aparted to 6641 tors, which contained 562 tors.

Total for the quarter Quarter ending March, 1881 Quarter ending Dec., 1880 ... Quarter ending Sept., 1880 ... 29,798 16 0 35,089 19 0 36,350 7 0 36,505 17 0 602 15 ... 641 16 ... 696 9 ... 705 17 ... 10,174 Total for the year Showing a quarterly average of Corresponding quarter, June, 1880.

The ores sold at the Swansea Ticketings were Pate. Standard. Prod. Price. Perunit, Tons. April 5... £83 5 9... 9½ ... £5 11 5... 11s, 2d... 1,920 ... , 28... 82 16 10... 8½ ... 4 12 10 11 4 ... 1,181 ... May 10... 81 0 11... 8¼ ... 4 17 9... 11 2 ... 1,702 ... 31... 82 2 6... 7¼ ... 4 0 6... 11 0½ 1,838 ... Fine cop. Amount.
... 1831 10c ... £10,699 14 6
... 96 15 ... 5,483 6 0
... 149 0 ... 8,322 3 6
... 133 11 ... 7,398 8 0 Total for the quarter......Quarter ending March, 1831Quarter ending December, 1880 Quarter ending September, 1880 562 16 ... £31,903 12 0 446 14 ... £6,329 19 6 448 16 ... 24,514 12 6 674 2 ... 37,549 16 0 Total for the year Showing a quarterly average of Corresponding quarter, Jnne, 1880. 25,519 6,380 5,520 ...2132 8 ...£120,298 0 0 ... 533 2 ... 30,074 10 0 ... 535 14 ... 31,460 10 0

AMERICAN LOCOMOTIVE BUILDING.

The Americans are making great efforts to develope the manufacture of locomotives, not only in their own country but throughout the world. The immense development of American railroads, of which somewhere about 100,000 miles have been completed, of course, the world. The immense development of American railroads, of which somewhere about 100,000 miles have been completed, of course, in itself secures a good current of orders to American locomotive builders. But they are not content with this, but are endeavouring to obtain orders for their engines in Mexico, South America, Australasia, and, indeed, all over the world. We learn from Philadelphia that the Baldwin Locomotive Works, of that city, which are the greatest establishment of the kind in the United States, will do an unprecedented business during 1881. Last year the works delivered 517 engines, but it is calculated that this year they will turn out some 80 more. Orders are said to be pouring in from all parts of the United States as well as from Mexico. Between 50 and 60 Baldwin engines have gone to Mexico since New Year's Day. A number of steam motors for Sydney, New South Wales, are also in hand. These are circumstances which appear to us to deserve the serious attention of all engaged in mechanical industry in Great Britain. Hitherto English firms have lad a practical monopoly of the locomotive trade of the world, France, Belgium, Germany, and the United States excepted. But in this department of industry, as well as in many other branches of human efforts, we are confronted with the competition of the United States. It is true that the great Baldwin Works, to which we have just referred, are the principal establishment of the kind to be found in the American Republic. But, nevertheless, there is a great deal of locomotive building also going on in the States of New Jersey and Rhode Island, while the manufacture of railway engines has also been recently commenced at St. Louis. Moreover the American locomotive building also great part in the Margover the American locomotive building also going on the Margover the American locomotive building also going on the Margover the American locomotive building also going on the Margover the American locomotive building also going on the Margover the American locomo the States of New Jersey and Rhode Island, while the manufacture of railway engines has also been recently commenced at St. Louis. Moreover, the American locomotive has been greatly improved of late years; and while American engines still retain their distinctive features their speed has been materially increased.

There are two points in which American locomotive builders show much adroitness—viz., the readiness with which they produce an engine which will run with safety over a road-bed which an English engine, would pronounce unwerkelde and the case with which

engine which will run with safety over a road-bed which an English engineer would pronounce unworkable, and the ease with which they arrange for the consumption of such fuel as may most readily come to hand. The pioneer railways of the United States have been very rough and primitive affairs, and some lines which have been very rough and primitive affairs, and some lines which have been very rough and primitive affairs, and general difficulties of the most startling character. Still with the help of the bogic truck, American engines keep to the rails under circumstances and conditions under which the heart of an English engineman would not unnaturally quail. We do not say that trains run at a speed of more than 60 miles an hour over the lines of Colorado and Calinot unnaturally quail. We do not say that trains run at a speed of more than 60 miles an hour over the lines of Colorado and California; that is a speed reserved for older and more thoroughly com-pleted lines; but still the American locomotive is quite at home, and does useful work upon road-beds which would be considered and does useful work upon road-beds which would be considered impracticable even by young and stout-hearted English railway men. The ease with which the American locomotive adapts itself to the fuel available in young and unperfectly developed colonies or States is also remarkable, and affords another emphatic of the time.

worn proverb that "necessity is the mother of invention." If East lish locomotive builders hope to compete successfully with America firms in such communities as Mexico, Brazil, Chili, or New Zealand they must not adhere too obstinately to old ideas, but they must endeavour to adapt themselves to the circumstances and requirements of their remote but still valuable clients.

CALIFORNIAN HYDRAULIC MINING AND BRITISH CAPITAL.

CALIFORNIAN HYDRAULIC MINING AND BRITISH

CAPITAL.

From the long period during which gold has been obtained by simple washing in countries where mechanical processes are comparatively undeveloped, it may safely be said that more of the precious metal has been added to the world's wealth by that process than by any other; and although, as might naturally be supposed the simple washing process could not be carried on beside gold quartz mining without undergoing modifications to adapt it to modern requirements, it has still retained its principal attractions. The slnice, says a competent authority, though perfect as a device for washing the dirt, was not the last invention in placer mining. The shovel did not furnish earth to the sluice fast enough, and the wages of a dozen workmen must be saved if possible. In 1852 Edw. E. Mattison, a native of Connecticut, invented the process of hydraulic mining, in which a stream of water was directed under a heavy pressure against a bank or hill side containing placer gold, and the earth was torn down by the fluid, and carried into the sluice to be washed; thus the expense of shovelling was entirely saved. The man with the rocker might wash one cubic yard per day; with the tom he might average two yards; with the sluice, four yards; and with the hydraulic and sluice together, 50 or even 100 yards. The difference is immense. A stream of water rushing through a 2-in. pipe, under a pressure of 200 ft. perpendicular, has tremendous force, and the everlasting hills themselves crumble down before it as if they were but piles of cloud blown away by a breath of wind or dissipated by a glance of the sun.

It is the most approved system of hydraulicing here mentioned that is carried on at the Blue Tent Corsolidated Hydraulic Gold Mines of California, whilst the Fall Creeks Lakes Water Company supplies the fluid with which the Blue Tent's everlasting hills are crumbled, and the two companies—both being going concerns in full operation—are to be amalgamated as the Yuba River Gold Daarin

County, California; and as a valuable water-right, a canal 31 miles in length, of the capacity of 25,000,000 gallons per diem during the water season (a quantity about equal to that carried by the largest of the metropolitan water companies) and two smaller aqueducts. It is observed that the quantity of gold as yet untouched in the auriferous gravel beds of California is enormous, and that taking the area of the company's auriferous alluvium at 400 acres, and the thickness at only 225 ft., the gold contents of this property, based on the average yield of the last three years from the gravel of the South Yuba bank, reaches the high figure of 3,700,000%, sterling. The cost of getting the gold should not exceed 45 per cent. of the gross yield.

yield.

The incoming shareholders, as is very properly pointed out, will have the full advantage of the large amount of work already donein fact, it is considered that all the uphill work has now been got through. The Blue Tent Company has been engaged since the latter part of 1873 in building canals and reservoirs, and in developing the property generally. During this time the total produce of gold has been 122,000% sterling, of which \$1,000% was from the South Yuba bank alone; and the whole of this amount (after defraying working expenses and the necessary charges for interest on debentures and loans) has been expended on permanent improvement of the property. A new tunnel of large size is nearly completed to the face of the South Yuba bank (only \$40 ft. remaining to be driven), through which the rich bottom gravel in the centre of the property will be washed off. The property will then be in full working order. It is confidently believed that on the completion of the company's tunnel the concern will rank amongst the very largest of similar under-

confidently believed that on the completion of the company's tunnel the concern will rank amongst the very largest of similar undertakings, and the property will then be worth 183,750!., according to the valuation of Mr. Thomas Price, of San Francisco, whose name as a competent mining engineer, is well known to the readers of the Mining Journal.

The Fall Creek Company owns a canal eight miles long, a sawmill, and seven lakes in the mountain range, wich forms part of the watershed of the South Yuba river. The canal brings water from the company's lakes to the head of the Blue Tent Company's canal on the South Yuba river, and it is also used to float timber to the same place. The lakes and reservoir sites belonging to this company on the South Yuba river, and it is also used to float timber to the same place. The lakes and reservoir sites belonging to this company cover an area of 200 acres, and their storage capacity can be largely increased. The Fall Creek Company has, out of the profits earned by the sale of water and lumber to the Blue Tent Company, paid in 1879 and 1880 a dividend at the rate of 5 per cent. per annum. The purchase price, having been fixed by the vendor companies upon the assumption that the present shareholders will supply the additional capital to be subscribed, is considerably below the appraised valuation, and the new board is composed of members of the Blue Tent and Fall Creek Companies direction, with the addition of Mr. Tufnell Southgate, chairman of Roman Gravels Mining Company, and Mr. H. Wilson. Creek Companies direction, with the addition of Mr. Tufnell Southgate, chairman of Roman Gravels Mining Company, and Mr. H. Wilson, of Tankerville Great Consols, whilst Mr. Peter Watson, the chairman and managing director of Devon Great Consols, and director of the Great Laxey Company, has accepted the office of London manager. Mr. Thomas Price reports that on completion of the new tunnel and Lake improvements the joint properties of these two companies will be of the value of 214,000\(lambda\), and will be capable of earning a profit of not less than \$136,000\(lambda\), or say 27,750\(lambda\). Per annum, the whole of which will be applicable to dividends after payment of the debenture interest, 4710\(lambda\). In other words, the estimated profits will be equal to a dividend of 15 percent, on the capital of the company.

THE MINERAL RESOURCES OF SOUTH-WESTERN VIRGINIA,

From the numerous and elaborate papers upon the mineral resources of Western Virginia which have from time to time been written by our valued correspondent, Mr. C. S. Richardson, M.E., probably few parts of the United States are better known to the readers of the Mining Journal, and renewed attention will now be attracted to the region by the publication of the report of Mr. C. E. Boyd, M.E., on the Resources of South-West Virginia, showing the mineral deposits of iron, coal, zing, copper, and lead (New York: mineral deposits of iron, coal, zinc, copper, and lead (New York: John Wiley and Sons. London: Trübner and Co., Ludgate-hill), which gives so complete a review of the entire subject that those disposed to assist in the development of either the mines or industrial resources of the country will have ample opportunity of judging of the relative prospects of the several localities. The report being already as concise as it is possible to make it an epitome of the volume would be out of the question; it must, therefore, suffice to notice some of the mentions made of the minerals, taking the several some of the mentions made of the minerals, taking the several counties—Montgomery, Pulaski, Wythe, Smyth, Washington, Giles, Bland, Tazewell, Russell, Scott, Lee, Wise, &c.—in rotation. Referring to the gold-bearing rocks of Brush Creek, Montgomery county, it is stated that the washings so far show the gravel to yield about 33 dwts. to the hand per day with rude sluice boxes. These same strata cross the south fork of Roanoke river, about the line between Montgomery and Flord counties and ought these in the between Montgomery and Floyd counties, and ought there in the deeper gorges to yield more heavily than anywhere else. A large

deeper gorges to yield more heavily than anywhere else. A large vein of pyrites containing copper, lead ore, and iron ore are referred to as existing in this county.

The natural features of Pulaski county, says Mr. Boyd, are nearly all of that order which, if known universally, would fix the attention of the least observant, whether it was invited to the scenery. made up of mountains, forests, and broad streams, great grass fields, dotted with herds of fine cattle, or those extraordinary exhibits of

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of the clim can leave n the modern large civilize good result let his entl nineral, material, and mineral waters that mark the belt in which plaski is situated. Though small in the extent of its territory in comparison with the other counties of this section, Pulaski is making wide and favourable reputation for the almost fabulous quantity of its iron ore and the extent of its fine coal fields, to say nothing of the ores of zinc, lead, and other minerals. In addition to this, it is making giant strides to obtain a position as the leading manufacturing county. In the development of its different ore fields, Wyther county is making rapid strides towards a position of commercial importance. If conditions of transportation could once be made to as ame a correct relation to the different interests of agriculture, mines, and manufactures Wythe would not be long in taking a leading position among the countries most noted for high commercial prosperity; and this comparison might very safely be extended to the most favoured localities throughout the whole country. In Smyth county there are vast deposits of iron and manganese of superior character, and these magnificent veins and deposits lie sometimes within and generally but a mile or so from grass and grain lands unsurpassed in fertility. Washington county has fine iron ores, as well as ores of copper, lead, and zinc, plaster, salt, marble, and barytes. It is rare, says Mr. Boyd, that Nature repeats such a combination of fine ores in veins and deposits, mineral waters, superior grass and grain lands, together with noble forest, river, and lake zoenery as is presented in the area covered by Giles county. In Bland county there are iron ores, manganese, coal, lead and zinc, and barytes. In Tazewell county there are the same, with the addition of copper and salt. Russell county there are the same, with the addition of copper and salt. Russell county there are the same, with the addition of copper and salt. Russell county there are the same, with the addition of copper and salt. Russell county there are the same, with the addition of copper and s tion of copper and salt. Russen county has not accepted a price and barytes. Scott county has coal, iron ores, manganese, lead, falt, marble, barytes, and fire-clay; and in Lee county they have coal, iron ores, lead and zinc, limestone, barytes, and kaolin. Buchanan, Carroll, Grayson, as well as Ashe and Alleghany counties, which, although in North Carolina, come within the same mineral region, are all worthy of attention for their mineral wealth; and with regard to the gold in the Floyd county, Mr. Boyd remarks that on the Floyd county side of the river there is no stream answering to that of Brush Creek. Consequently the same formation, though containing, no doubt, the same percentage of free gold is not so concentrated. The details given in the volume, which is beautifully illustrated, are in every case very full, and from the manner in which they are related there can be no doubt as to Mr. Boyd having a perthey are related there can be no doubt as to Mr. Boyd having a personal knowledge of the facts which he records, and which should certainly suffice to secure for South-West Virginia the cordial support of the capitalists, by showing that there is an ample field for remunerative enterprise.

INDUSTRIAL PROGRESS IN GOLD MINING.

INDUSTRIAL PROGRESS IN GOLD MINING.

The history of gold mining in the United States is of interest to a large number of readers, and the reference to the almost forgotten infancy of the United States gold industry cannot but prove encouraging to those now engaged in gold mining in India, since it seems evident that the Pacific states of the Union were no more entitled 30 years ago to be considered a virgin auriferous region than is India at the present time. An interesting little review of the Gold Mining Industry of the United States has just been published by the Mears Chlorination Company, of Philadelphia (Trübner and Co., Ludgate Hill). It will, no doubt, surprise many to learn that although American gold and the Pacific States are almost invariably associated, it was in the Atlantic States that that industry had its origin. In 1799 there was found in Cabarrus County, North Carolina, a golden nugget of great value. In 1825 the pioneer prospector—Matthew Barringer—made the first discovery of vein quartz in the United States. In 1830 Georgia was credited in the United States Mint with the important deposit of \$212,000. The second period of gold mining interest was from 1848. California was once a Spanish possession; Spain had derived wealth from her distant colonies, therefore it was argued, without due regard for the connection of the conclusion with the premises, that therefore California must be auriferent as the truther the discovery of sold in the Work was readed. fore it was argued, without due regard for the connection of the conclusion with the premises, that therefore California must be auriferous; so that when the discovery of gold in the West was made—though tradition has nothing to do with it—the public were quite ready to receive and act upon the gratifying news. The third period commenced in 1858, and an abundant crop of failures soon followed, because Eastern investors then knew literally nothing of miners, mines ,or mining, a knowledge of all three of which has been found to be securial to a reconstitute account.

mines or mining, a knowledge of all three of which has been found to be essential to a successful management.

The fourth period, commencing about ten years later, had the advantage of vast stores of accumulated mining information in the reports of the United States Commissioners and various scientific publications; whilst mining schools have educated American mining engineers and experts, and the methods of working ores have been improved, and machinery cheapened. In the meanwhile a superficial area of metalliferous deposits has been partially explored in 15 States and Territories, and sufficiently prospected to show the existence of the precious metals to be inexhaustible for centuries, however stupendous may be the outlay of capital and energy. The existence of the precious metals to be inexhaustible for centuries, however stupendous may be the outlay of capital and energy. The history of gold-finding in the United States having been disposed of, articles are given on the world's accumulation of precious metals in 1878, on the areas of gold distribution, on the gold areas of the United States, on the geological occurrence of gold, on auriferous velns, fissures, or lodes, on gold washing or alluvial gold, on the working yield of auriferous ores, on the stamp-mills and attachments, on the present treatment and methods of working sulphides, on the loss of gold by stamp-mill, on the present condition of industrial gold mining, on the Mears improved method of extracting the precious metals from auriferous sulphide ores by chlorination, and on the applicability of the process to the extraction of silver and copper. There is a full appendix, giving notes upon the details connected with the several articles, so that a fairly complete knowledge of the entire subject can be obtained from the book, and many may discover the means of making properties remunerative which have hitherto been a source of loss and disappointment.

THE MINERAL RESOURCES OF ARIZONA.

Arizona has hitherto received considerable less attention from capitalists, whether American or English, than probably any of the Western States, yet she certainly offers equal attractions and promises to repay equally well for development. Nor is there any excuse for this neglect, for two or three years since Mr. R. J. Hinton, of the San Francisco Evening Post, gave as good an account of Arizona as Frank Fossett furnished of Colorado. ("The Resources and Natural Wealth of Arizona, a Handbook to its Histona Towns." Arizona as Frank Fossett furnished of Colorado. ("The Resources and Natural Wealth of Arizona: a Handbock to its History, Towns, Mines, Rains, and Scenery." By R. J. Hinton. San Francisco: Payot, Upham, and Co. London: Trübner and Co., Ludgate Hill.) And as it is now likely that various mines in Arizona will be brought into the market the book will be well worth the study of intending investors. After giving in the earlier chapters an answer to the question Where and What is Arizona? an Historical Sketch, and an account of the Physical and Geological Features; he treats of the Territory's Mineral Resources, and of the Mines. Mills, and Locations. Territory's Mineral Resources, and of the Mines, Mills, and Locations.

The chapter Over Valley and Mesa is an interesting one; and in that on the Upper Santa Cruz Valley there are references to the mines about Tubac, the chief impediment to working which appears to be the inconvenient proximity of Apaches, the most fierce and burbarous tribe of Indians in America. Four managers of the Santa Rita Mining Commany—Stark Wrightson Grosvegor and Warking

form that failed to discover it. Its exact position, he says, is now unknown, though the neighbourhood in which it was found is very plainly indicated by the old records and letters. Don Manuel Retes, in an essay on the mineral resources of northern Sonora, says this mineral deposit, situated 31½ north and 111° west of Greenwich, is described by a Yaqui Indian about the commencement of the last century. Distant from 4 to 5 leagues from the mine of Arizona about 15 miles from the town of Tumacacuri, the nearest settlement; about 25 miles from the Presidio of Santa Cruz; nearly 90 miles from Ures; and about 130 leagues from Guaymas. The silver was about 25 miles from the town of Tumacacuri, the nearest settlement; about 25 miles from the Presidio of Santa Cruz; nearly 90 miles from Ures; and about 130 leagues from Guaymas. The silver was discovered in sheets of different sizes, from which the name Planchas de Plata originated. They were found almost on the surface, perfectly pure, and without adhering to any foreign substance, in a flexible state capable of receiving impressions, and only hardening on being exposed to the atmosphere. The region which produces them is an earth of the colour and very much resembling ashes, which extends in visible leads more or less wide, and in parts subdivided into veins all over the hills and mountains adjoining the main deposits. One sheet weighing 149 arobas (1½ ton), and one of 21 arobas (½ ton), were taken out; and altogether 400 arobas, or 5 tons, were extracted. Another mine of very rich silver was the Arizona, the position of which is also lost. About 18 miles south from Tucson are the San Xavier and the Pima Mines, which are of some importance. The former has been long known, and partially worked by Mexicans. The ore consists of argentiferous carbonates and sulphurets of lead, estimated worth 40 to 65 per cent. of lead and \$65 per ton for silver. The territory is beyond question deserving of the attention of capitalists; and to enable them to employ their capital with advantage they cannot have a better guide than Mr. Hinton's book. their capital with advantage they cannot have a better guide than Mr. Hinton's book,

THE PROFITS OF THE INDIAN GOLD MINES.—The celebrated case of Harris v. Fleming still continues before Vice-Chancellor Hall, but there appears to be a probability of its being concluded in the course of next week. The plaintiff's case is closed, and on the side of the defence Mr. Morton, one of the defendants, has been examined and cross-examined, and his evidence, curiously enough, confirms that of the plaintiff. On Wednesday the examination of Mr. Maxwell commenced, so that there will soon be evidence on record which will permit of an opinion being formed even before the decision of the index is actually given. decision of the judge is actually given.

MINING ON LAKE SUPERIOR.—The valuable silver mining property, 10,000 acres in extent, at Pie Island, Thunder Bay, will believed be got into full operation during the present year. capital—1,000,0000.—of which 900,0000. is taken as purchase money, is said to have been raised chiefly in New York, whence the ore will be sent for smelting. The board of directors is an influential one, and the working capital of 100,0002. will, it is considered, be ample to develope the mines, and large profits are anticipated.

CANADIAN MINING.—The Newfoundland copper mines are progressing favourably, but it is generally considered that the high price gressing favourably, but it is generally considered that the high price which has been placed upon the property recently sold in London—Bett's Cove, and other mines—will make it so nearly impossible to give dividends to the shareholders that even if the capital demanded has been obtained the disappointment which will follow will rather check than otherwise the development of the mineral resources of the province. A systematic mining survey of Nova Scotia at the joint expense of the Dominion and Nova Scotian Governments is about to be made by Mr. Dawson, of the Canadian Geological Survey; it is hoped that the efforts will bear better fruits than those of the late Mr. Heatherington. Nova Scotia offers a wide field for enterprise. prise

SUCCESSFUL AMERICAN MINING.—The remunerative character of mining when persistently followed is now fully recognised in America—the result being that many who formerly regarded mining as dangerously speculative now willingly invest in mines, from the conviction that they yield at least a fair average interest. This change is fully justified by figures, since a careful estimate shows that the aggregate yield of the mines of the United States in 30 years has aggregate yield of the mines of the Critical States in 30 years has been equal to 7 per cent. per annum on a total investment of \$700,000,000. The same average result may be confidently relied on for a great many years to come. In one sense this may seem to be a small return, but it must be remembered that the gain is in actual not in ficticious value. Mining camps will continue to boom here and there (for all mining hamlets on the Continent have had, or expect to have, their boom), not il great meantain and ravine and and there (for all mining hamlets on the Continent have had, or exexpect to have, their boom) until every mountain and ravine and river bottom from Mexico to Alaska shall have been explored, but the main features of the industry will still be the same. Mining for the precious metals is a serious business, involving much of the sublimity and tragedy of human life. It stimulates that Christian virtue, hope and labour, that developes mankind. By its pursuit men learn patience, endurance, and fortitude, while every day of experience adds to the conviction that for all the favours she bestows Nature demands an equivalent. The New York Mining Record shows that the Leadville daily output now reaches 800 tons, and the prospects of the mines in Colorado seem to be all that can be desired. A dozen of the Comstock (Nevada) companies are paying between them over \$140,000 per week in wages, &c. New Mexico, North Carolina, and Utah are also making good progress, and from the promise of the mines there is no reason to doubt that within a short time the average profits will be raised to 10 per cent—an amount of interest that should satisfy the most exacting.

IRISH MINES.—Continuing our journey west from Lisheremig Silver Mine we find, about two miles south of that mine a parallel zone of silver-lead lodes, which from surface indications—there being to be silver-lead lodes, which from surface indications—there being to be seen pure galena, quartz, arsenical pyrites, &c.—present a wide field for the profitable investment of capital, this district being beyond doubt highly charged with argentiferous ores and minerals. In a deep indentation of the south shore of Bantry Bay, as we pass on to the west, we find valuable veins of roofing slate, which being close to the shore may be advantageously worked, there being no land carriage or cost of moving the debris. The scenery as we pass along the cliffs to the Sheep's-head is wild and grand, and the mountain range (Meintervarra), which divides Bantry and Dunmanus Baysbeing some 1200 ft. above the sca-level—the view from the top of it excels in wild grandeur anything we have seen in the United Kingdom. Tourists have no idea of the pleasure to be derived from a visit to this ultima thule. An intelligent miner, who has settled down in a sheltered nook formed by the indentation of the shore, on a sunny little farm, which with his family he cultivates, and by fishing and never being idle he makes out a comfortable living, pointed out to us some extraordinary lodes running into the mountain range, which by means of adits or tunnels driven on their course would gossan, quartz, mundic, &c., which runs into the mountain, and in its course intersects within 100 fms. a band or belt of six or eight splendid east and west copper lodes. Hundreds of tons of mundic and copper ore were dug out of the back of the great oblique lode, and it appears plain to us that extensive valuable mines may be opened here with the certainty of success. The grant of this great mineral property, we are informed, extends over 1500 acres, and that an agreement has

as the place for the eeremony, and from the utility of the exhibition it is cordially to be hoped that it will be well supported.

KÖRTING'S JET APPARATUS.

KORTING'S JET APPARATUS.

The simplicity and durability of the various jet apparatus manufactured by Messrs. Körting Brothers, of Manchester, have already been noticed in the Mining Journal, and their constantly extending application affords the best possible guarantee of the satisfaction which they give in use. Mr. E. Körting's patent universal injector has proved at once strong and efficient; it works with hot or cold water, and with high or low steam pressure, without requiring any pressure of steam or water. This result is obtained by combining two complete injectors; the first or lifting injector delivering the water into the second or feeding injector, and as the first regulates the water supply of the second, as required for various steam pressures, no special water adjustment is necessary. It is claimed that by this combination advantages are obtained over all other injectors; the universal injector, for example, requires no regulation; it cannot the universal injector, for example, requires no regulation; it cannot be improperly manipulated for starting; it has no moving or wearing parts; it has no overflow, and cannot lose any water when working; it works with a maximum temperature of feed-water of 155° Fahr.; its greatest height of lift (suction) is 24 ft. It will, of course, be understood that these extraordinary results are obtained only with injectors specially constructed for special requirements. All injectors are carefully tested before leaving the works, so that an-

injectors are carefully tested before leaving the works, so that annoyance and disappointment are things unheard of.

The steam jet apparatus of Messrs. Körting Brothers is already extensively applied to various purposes in chemical works and other manufactories in England, as well as in America and on the Continent. This apparatus consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus of the consists of a jet of high-pressure steam, apparatus consists of a jet of high-pressure steam, and a jet of high-pressure steam, and a jet of high-pressure plied somewhat like a Giffard's injector, through a series of conical tubes, for the purpose of moving or forcing gases and liquids in any required direction. It has been applied to force air through the gas producers in connection with Siemens' furnaces, and to the fires of producers in connection with Siemens' furnaces, and to the fires of ordinary steam boilers. For ventilating purposes it has been applied to workshops, mines, drying rooms, and other places. It has been somewhat extensively applied as an exhauster in gasworks to take off the pressure of gas in the retorts, and also for revivifying the oxide of iron used in purifying gas without removing it from the purifiers. Steps are now being taken to apply it to the carbonating and other furnaces of chemical works in this district. When applied to ordinary steam boilers the apparatus is arranged so as to force air through the fire below the grate. Several of these have already been fitted up in the Manchester district, and it is said have been the means of effecting a considerable reduction in the amount of fuel used. Mr. Marshall, of the firm of Messrs. R. and W. Hawthorn, has [furnished the following particulars, showing the amount of fuel used before and after the application of the Körting blowers in their engineering works at St. Peter's, near Newcastle. Before the Körting apparatus was applied a Root's boiler and a Cornish boiler, consuming together in 230 hours of twenty consecutive days 78 tons 2 cwts. 2 qrs. of unscreened coal, and were used to raise steam for the requirements of the works.

2 cwts. 2 qrs. of unscreened coal, and were used to raise steam for the requirements of the works.

With the Körting apparatus they find they can dispense with the Cornish boiler, and the same work was done in the same number of hours with 26 tons 7 cwts. 2 qrs. of a mixture of two-thirds of small coal and one-third unscreened. There is in this case a saving of 50 per cent. of fuel. At a Cornish boiler in their works at Newcastle the economy is not so marked, but it is still considerable. For doing the same amount of work for 20 consecutive days of 12 hours each there were required per day:—With natural draught 96 cwts. of unscreened coal, at 12s. 6d. per ton; with the Körting Blower 90 cwts. 2 qrs. 10 lbs. of small coal, at 7s. per ton, thus showing a saving of 28s. per day, or fully 46 per cent. The reasons why this conomy of fuel can be effected with this apparatus appear to be That the intensity of combustiou is very great, owing to the air being brought under pressure into contact with the fuel. The proportion of heat utilised under these circumstances is greater than it is with a slower combustion. The combustion is quite indethan it is with a slower combustion. The combustion is quite independent of chimney draught, so that the heat required for producing chimney draught can be used for raising steam, and the fuel, even if of an inferior description, is burnt completely away, so that none is thrown away with the ashes. All the manufactures of the firm are admittedly of high quality, and will entitle them to the extensive business they have secured.

Society of Chemical Industry.—A society which promises to have an important future commenced its first general meeting on Tuesday, in the hall of the Institute of Civil Engineers, Great George-Tuesday, in the hall of the Institute of Civil Engineers, Great Georgestreet. Inaugurated as recently as April 4 last at the rooms of the Chemical Society, Burlington House, it already numbers more than 300 members, and yesterdays meeting was largely attended. Prof. Roscoe, F.R.S., the President of the Chemical Society and also of the new society, was in the chair. The aim of the society is to bring more closely together the scientific chemist and the practical man, or, as it is worded in the laws, "to promote the acquisition and practice of that species of knowledge which constitutes the profession of a chemical engineer." After the President's address three papers were read:—On "Recent Legislation on Noxious Gases," by Mr. E. K. Muspratt; "the Brewing of Lager-beer," by Prof. C. Graham; and "Mechanical Furnaces," by Mr. James Mactear. In the evening the members dined in the Pillar Hall at Cannon-street Hotel.

SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS.—At the monthly meeting at the Mining Museum, Dudley, on Monday Mr. W. Farnworth, vice-president, occupied the chair, and there were present, among others, Messrs. H. Johnson, J. Hughes, D. Rogers, Treglonn, J. Davis, R. Latham, J. Field, Munro, J. Cooksey, J. H. Cooksey, jun., H. Johnson, jun., and Wardle. Mr. Herbert Caldicott, of Dudley, was elected a student. The secretary, (Mr. Alexander Smith, M.Inst.C.E.) read the new rules, compiled by the Boiler Rules Committee, for the use of proprietors and boiler attendants. The code had been drawn up after much careful and deliberate consideration. It was decided that they be discussed at the next meeting. The secretary also read the minutes of the various meetings held in connection with the formation of a Miners' Provident Society for the district. The scheme had been floated, and the rules were being registered. The report showed that a deputation had waited upon Mr. E. Fisher-Smith—Lord Dudley's chief agent—who stated that both he and the colliers were satisfied with the present arrangement, but he appreciated the efforts SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE sunny little farm, which with his family he cultivates, and by fishing and never being idle he makes out a comfortable living, pointed out to us some extraordinary lodes running into the mountain range, which by means of adits or tunnels driven on their course would attain a depth of 1000 ft., and effectually drain the interior of the mines of water without the cost of machinery. We saw a great oblique lode, consisting of yellow copper ore, black oxide of copper, gossan courts munding for which runs into the wounter made in the content who is stated that both he and the cofforts building made to establish a mutual insurance scheme, and should three-fourths of the mining district accept it he would willingly join it. The rules provide that thin coal men shall pay 3d. and the masters attain a depth of 1000 ft., and effectually drain the interior of the mines of water without the cost of machinery. We saw a great oblique lode, consisting of yellow copper ore, black oxide of copper, grossan courts munding for which runs into the wounter made in the content water of the state of the world willingly join it. The rules provide that thin coal men shall pay 3d. and the masters 2d. The proposal of Mr. Bailey to remove the home of the oblique lode, consisting of yellow copper ore, black oxide of copper, for the world willing the provide that the appreciated the efforts being made to establish a mutual insurance scheme, and should three-fourth or the runs of the mining district accept it he would willingly join it. The rules provide that thin coal men shall pay 3d. and the masters 2d. The proposal of Mr. Bailey to remove the home of the oblique lode, consisting of yellow copper ore, black oxide of copper, which we have the provide that the content of the fortist of the world willing the provide that the content of the mining district accept it has the provide that the content of the fortist of the world willing the provide that the content of the provide that the content of the provide that the content of the provide that mittee was eventually formed to wait upon the representatives of the College with a view to ascertain the terms and advantages connected therewith. It was agreed that the excursion to South Wales should not take place unless 25 signified their intention to join.

EDUCATION OF MINERS IN BRAZIL.—The natural and necessary equence of the organisation of the Mining School of Ouro Preto has the ecrtainty of success. The grant of this great mineral property, bethe inconvenient proximity of Apaches, the most nerce and barbarous tribe of Indians in America. Four managers of the Santa Rita Mining Company—Stark, Wrightson, Grosvenor, and Hopkins—were killed during the years 1861 to 1863. A good account of the discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of gold and silver into the Santa Rita range in 1769 is discovery of the fessuits, and seeing silver, on the plantal London: Trübner and Co., Ludand London: Trübner and Co., Ludand Rita Rita range in 1769 is discovery of the foreign schemes when they may safely and profitably invested and profitably and series and the question why men will risk and lose millions sterling in some discovery of the foreign schemes when they may safely and profitably and control carrying the plates pass. The peculiar triangular shape of these scrapers or conveyors admits of their passing over the pulleys with-

VENEZUELA GOLD MINES.

Some two months ago the public were invited to subscribe to a gold mine in Venezuela, the Potosi, and the attention of investors was then directed to the immense value of the gold mines in this country. Hitherto these mines had obtained but little notice from English capitalists, but when it became known that there existed in Venezuela mines whose yield had been far greater than any in Australia or California, the Potosi Company obtained the whole of their capital five times over at once. Since then attention has been drawn towards this State, and information has just been received which is likely to place Venezuela at the head of gold-producing countries. A new gold-bearing district has been discovered to the south of Bolivar, new gold-bearing district has been discovered to the south of Bolivar, and the announcement appears to have created no small stir in the commercial world, outside even of the general mining community, for both French and English papers have considered the discovery of sufficient importance to devote a part of their valuable space to giving publicity to it. It appears that this El Dorado was discovered by a mining engineer who had many years' experience in Venezuelan gold mining, and who states that with a perfect knowledge of El Callao, that immensely rich mine at Caratal, of Potosi, Panama, and every other mine in the province, he is convinced that this newly-discovered district will prove far richer than they have ever done, though the former company are now declaring dividends of 1001, per month on shares of 1501. This gentleman, having made his discovery, and having thoroughly prospected the district, went to Bolivar to make the necessary arrangements for obtaining titles to the land.

Meanwhile, the fact of his having discovered this rich property became known to the mining community, and, relying as much on

became known to the mining community, and, relying as much on the well known abilities of the discoverer even more than on the reports, party after party left the old mining district and "rushed" the new one. Without giving the absent discoverer a chance to protect his interests, these usurpers at once "jumped" the whole property. When he returned, prepared to take up the concession, he was met by an excited mob, who threatened to shoot him if he put his foot on the property. In vain did he represent that, being the discoverer, he surely had an equal right with them to partici-pate in the evident vast riches of the dislrict, but he was finally driven off the property, and compelled to return to Bolivar. Upon making representations of the facts to the President of the State, a making representations of the facts to the President of the State, a company of soldiers were at once dispatched back to the property with him, and not till the would-be thieves were fully convinced that unless the engineer was allowed to take up all the lands he had discovered they would be dispersed by force of arms, would they allow the engineer to proceed to survey the land. Such an excitement has never before occurred in Venezuela, and among a mining population, accustomed as they are to the rich deposits of Callao and Cocopia, it is evident that the newly discovered field must possess unusual riches to tempt them to abandon the old mines. And there is little need of wonder when one lode is 5 or 6 feet thick, and lode is little need of wonder when one lode is 5 or 6 feet thick, and lode after lode is being discovered as the property is opened out. An English company, the New Callao (Limited), has been formed to secure part of this valuable property. The prospectus appears in another column

MINES REGULATION IN VICTORIA.-We have been favoured by Mr. Thomas Couchman, the Chief Inspector of Mines, with his report for 1880 to the Honourable the Minister of Mines. Although the fatal casualties for the year under review have been very slightly in fatal casualties for the year under review have been very slightly in excess of those of the two preceding years, the total number of persons who have received fatal and non-fatal injuries is less than any yet recorded, notwithstanding a perceptible increase in the number of miners employed. This result cannot fail to be otherwise than gratifying. The Inspectors of Mines, in their periodical reports testify that, as a rule, there has been a general and careful compliance with the provisions of the Regulation of Mines Statute in all the principal mines, which undoubtedly has operated beneficially in decreasing the number of accidents, and that the exceptions are to be found mostly among persons engaged in shallow alluvial ground, who found mostly among persons engaged in shallow alluvial ground, who work independently of companies; but the workings in mines of this character are of such a temporary nature, and are so generally spread over the goldfields, as to be difficult of constant supervision; and, furthermore, the persons employed are frequently so actuated by a desire to attain their objects at the least possible trouble and expense desire to attain their objects at the least possible trouble and expense that they are often insensibly led to incur serious risks of accident which prudent men would avoid. During the 12 months 22 persons were killed in alluvial mining and 28 in quartz mining; 11 deaths occurred at surface and 38 underground; 43 of the sufferers were Europeans and 7 were Chinamen. The deaths were nearly 0.969 per thousand of the mean number of alluvial miners employed and of quartz miners 1.822 per thousand. The average death rate per thousand of both classes was 1.313, or 1 death to every 762 miners employed. The report shows that the inspection is doing much to diminish less of life by accident, and that on the whole mining is carried on with a far smaller proportion of casualties in Victoria than in the with a far smaller proportion of casualties in Victoria than in the Mother Country.

CORPORATION OF SOUTH AUSTRALIA COPPER MINES. - Mr. Vinrace Lawrance (of Lawrance and Brook), formerly secretary of the Yudanamutana Mining Company, and latterly of the English Anstralian Copper Company, has been appointed secretary in Adelaide to the Corporation of South Australian Copper Mines (Limited). Those interested in the Company will doubtless be pleased to hear of Mr. Lawrance's appointment.

ROTARY STONE-BORING MACHINE WITH DIFFERENTIAL-SCREW DRILL-PROPELLER.—Mr. Egid Jarolimek, Royal Chief Superintendent of Mines and Technical Counsellor in the Royal Agricultural DRILL-PROPELLER.—Mr. Egid Jaronimek, Royal Agricultural tendent of Mines and Technical Counsellor in the Royal Agricultural Ministry of Vienna, has issued a pamphlet describing a new rotary boring machine. It consists of a hollow screw, which is provided with two long grooves. In these grooves lie set bolts, so that by their revolution the screw rotates with them, but at the same time is free to travel backwards or forwards. The rotation of the screw is produced by a rapidly moving motor driven by water, steam, or compressed air. In this instance a Mayer's double-cylinder hydraulic-pressure engine is used, which sets a worm in rapid rotation (200 to 415 revolutions per minute), and which according to the results already produced works excellently. The worm gears into a worm wheel fixed to the set bolts, and thereby the screw receives a motion of about 6½ to 13½ revolutions per minute. Behind the set bolts the screw passes through a female screw, which is not fixed, but travels by a differential motion in the same direction as the screw, but with a suitably slower velocity. For this purpose the follower lies, similarly to the set bolt, in the groove of the hollow screw, whilst the driver is fixed to the female screw. By changing the outer follower for another of different speed the velocity of revolution of the female screw can be easily regulated within the necessary limits, and therewith a suitable motion per revolution is transmitted to the boring and mixed write the screw and to the boring bit. Should for in with a suitable motion per revolution is transmitted to the boring rod united with the screw and to the boring bit. Should, for in-stance, the female screw and the screw be given a similar velocity of revolution, the borer would rotate with them but would receive no forward motion; on the other hand, by removing the differential motion and fixing the female screw the borer must travel the full length of the groove in the screw at each revolution. The book also contains a sketch of the construction and operation of the various other kinds of rock-drils, with a comparison of their respective

Novel Railway.—Mr. Lamont, a young English engineer, resident in Naples, has just submitted to the municipality a project for an underground railway in that city. The lines, as projected, will not only connect the east and west end to the centre of the city, but will present the novelty of reaching the villages on the heights by lifts, carrying the passengers to stations above. These lifts are worked by steam, and are ingeniously contrived to preclude accidents. The lines will have an extent of 14 miles, and will be worked by compressed air. There will be fourteen stations, and the works can be finished in three years, the volcanic sandstone offering great facilities for tunnelling.

(LIMITED).

Capital £300,000, in 300,000 shares of £1 each.

Payable-2s. on application, 3s. on allotment, 2s. 6d. on the 1st day of August, 2s. 6d. on the 1st day of September, 5s. on the 1st day of October, and 5s. on the 1st day of November.

The attention of investors is called to the reports, which show that this mine has been at work for the last eight years, is earning at the rate of £80,000 a year, and that by the addition of the machinery in the course of erection this return will be nearly doubled.

DIRECTORS.

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W. H. HOLYLAND, Esq. (Director of the London Guarantee and Accident Company (Limited), Hurstpierpeint, Sussex.
WILLIAM LEEMING, Esq. (Director of the Surrey and Hampshire Canal Corporations, Limited), Eaton House, West Derby, Liverpool.

F. MAXWELL LYTE, Esq., F.C.S., F.I.C., Cotford, Putney, S.W., Assayer to the Paris Mint. Lieutenant-Colonel A. W., RAY, The Lodge, Brixton Oval, Surrey. JESSE R. GRANT, Esq., New York.

AUDITORS Messrs. PRICE, WATERHOUSE, and CO., 44, Gresham-street, E.C. BANKERS.
THE ALLIANCE BANK (Limited), Bartholomew-lane

London, E.C. BROKERS. London-Messrs. HENRY PAWLE and CO., 13, Copthall-court,

E.C. Liverpool—ALFRED WOODS, Esq. Manchester—Messrs. POOLEY and GRAHAME. Glasgow—Messrs. JOHN MILLER and JAMES H. FERGUSON, 71, Queen-street.

SOLICITORS. Messrs. G. S. and H. BRANDON, 15, Essex-street, Strand, W.C. SECRETARY—EDWARD DUNN, Esq. OFFICES.—12, GEORGE YARD, LOMBARD STREET, E.C.

> ABRIDGED PROSPECTUS. PURCHASE OF MINES.

This company is formed to acquire two conterminous properties, known as the Providence Gold and Silver Mine, and the Providence South Extension Mine, situate about one mile west of Nevada City, California, and 12 hours railway journey from San Francisco.

The district is one of the most auriferous in the world. Contiguous

mines are well known to be working to great profit, and the celebrated and enormously lucrative Idaho Mine, of Grass Valley, is in the immediate vicinity.

RESULTS OF WORKING.

The Providence Mine has been worked for some eight years past by the recent proprietors (of whom one has lately died), and who are reported to have obtained from it over \$1,000,000 worth of gold,

never employing more than 20 stamps at any one time.

PERMANENCE OF MINES AND RESERVES IN SIGHT.

The reports of the enginers and experts show that the undertaking is absolutely free from speculative risk, that it is a going concern, at the present time yielding a monthly income of £5000 to £7000, so that profits will commence to accrue from the moment the company takes possession, and that the explorations are so extensive that a minimum reserve of £400,000 worth of ore, after allowing for the cost of working, is actually in sight.

COST OF MINES

The vendor is one of the promoters of the company, and has fixed the purchase price at £240,000, payable £140,000 in cash and £100,000 in fully-paid shares. The vendor is to discharge all the preliminary and other expenses of promoting the company, and of all agencies, advertising, printing, brokerage, and all legal and other costs and charges of and incidental to the formation, registration, and establishment of the company and the figure all threat of shares. and establishment of the company up to the first allotment of shares, and the price has been fixed upon that footing.

The directors have formed their estimate of the properties from the reports of Messrs. G. F. Williams, R. H. Stretch (of the United States Government Geological Survey), and W. E. Hildreth, mining engineers of the highest repute and experience, the originals of which can be seen at the offices of the company.

Mr. Williams elaborately surveyed the Providence Mine in February last year, and Messrs. Stretch and Hildreth made a prolonged examination and maps of the workings in the following June. REPORTS.

PROOF OF PROGRESSIVE DEVELOPMENT.

The latest report of Mr. Stretch is dated December 31, 1880. The dates indicate the progressive development of the Providence Mine, and the last is especially satisfactory.

The results of the subsequent working, however, have proved of a much more favourable nature than Mr. Stretch had ventured to an-

much more favourable nature than Mr. Stretch had ventured to anticipate.

ACTUAL ASSAYS.

Mr. Stretch's report concludes with 17 assays of samples of ore, comprising several wagon loads taken from every part of the mine, and made by Messrs. Hildreth and Williams, which (omitting one, which is exceptional, and gives a value of \$141.22 per ton) show a net average value of \$26.62 per ton. This is 125 per cent. better in quality (after allowing for \$4 cost of working) than the testimate made in June, and would, if borne out in practice, make the lowest estimated quantity then in sight—i.e. 202,000 tons, worth \$4,544,000, or nearly one million sterling, and without reckoning anything for value of silver. But if the amount, 342,857 tons, previously mentioned as the quantity estimated on the average thickness of vein, be taken, the value would be \$7,775,425, or £1,555,085.

RESULTS WITH NEW MACHINERY.

RESULTS WITH NEW MACHINERY.
Having regard to the foregoing, the following estimate is made:—
With an 80-stamp mill the daily output would be about 150 tons, equal to \$45,000 net monthly, if run upon the ordinary ores of the mine such as have been milled hitherto. But if one battery of five stamps be fitted up for dry crushing, so as to prepare the rich sulphuretted ores for chlorination, the amount may be raised to about \$1950 daily, or \$58,500 monthly, the daily work being 145 tons at \$100 and five tons at \$100 per ton per trofit. This on a capital of and five tons at \$100 per ton net £300,000 would give a return of about £46 per cent.

These special results may, as above stated, be obtained with an 80 stamp mill, of which 40 new stamps, with corresponding machinery, are now in process of erection, and were expected to be ready to work from the 1st July. These will be taken over by and at the expense of this company, and within a period of four months of the starting of this company's management erect the further 40 stamps, and thenceforward for years there need be no stoppage of the various processes.

ESTIMATED INCOME.

The essence of the reports and subsequent private advices is, that a minimum net profit of \$700,000 (£140,000) a year may reasonably be calculated upon for an indefinite number of years from an 80stamp mill, and this return may be increased in proportion to the

additional milling power.

additional milling power.

UNDEVELOPED PROPERTY.

SOUTH EXTENSION MINE.—It is believed that this mine will prove as relatively valuable as the "Providence," and owing to their proximity and the fact that the former would be drained by the operation of the latter, it is very advantgeous that both should this also in the same purchase. It has not yet been regularly worked, but large quantities of rich ore have been obtained from the

surface outcroppings.

The directors call attention to the fact that Mr. Jesse R. Grant,

100,000 Shares will be allotted to the vendor in part payment for the estate and mines, and the remaining 200,000 are now OFFERED FOR SUBSCRIPTION.

THE PROVIDENCE GOLD MINES

the undertaking and its value. Mr. Grant has personally inspected the mines.

CONTRACT.

The only contract entered into is—An agreement dated the 27th day of June, 1881, and made between William Smith Chapman, the vendor, of the one part, and Percy Head Baily, as trustee for the company, of the other part.

Copies of the Memorandum and Articles of Association, and of the contract above described are onen for inspection at the office.

copies of the Memorandum and Articles of Association, and of the contract above described, are open for inspection at the offices of the company, and may there be seen between the hours of eleven and three on any week day up to and including the 9th day of July, Prospectuses and Forms of Application for Shares may be had at the bankers, brokers, solicitors, or at the offices of the company. Should no allotment be made, the amounts paid on application for shares will be returned in full.

shares will be returned in full.

IN MINE TO BE DISPOSED OF ON REASONABLE TERMS are opportunity. Address, "A. B.," Post Office, Redruth, Cornwall.

GOOD TIN MINING SETT FOR SALE, on very reasonable terms, in a well-known district in Cornwall.

Apply for full particulars to "C. B. W.," care of MINING JOURNAL, 26, Fleet-street, London, E.C.

FOR SALE, TWENTY-FIVE LEADHILL MINING SHARES, fully paid (Limited), at 38s. 6d. each net cash to close an account. Address, "Alpha," care of Mr. Christie, 129, Cannon-street, London, E.C. MINING CAPTAIN SEEKS EMPLOYMENT AT HOME OR ABROAD. Is thoroughly practical from youth, now forty-one. Has een Miner, Agent, and Manager of Mines in Cornwall, Devon, Wales, and reland. References, testimonials, or interview. Inspections undertaken. Apply to "Engineer," 21, Hafod-terrace, Carnarvon, North Wales.

ETALS.—A Gentleman having a first-class connection in BIRMINGHAM among Consumers is DESIROUS of REPRESENTING GOOD HOUSE ON COMMISSION. References and security.

Apply by letter, "D. E. F.," MINING JOURNAL Office, 26, Fleet-street, E.C.

MINING ENGINEER OF EXPERIENCE IN SPAIN PORTUGAL, VENEZUELA (GOLD), &c., is OPEN TO AN ENGAGE T. Well acquainted with the Spanish language, Management of Men, Machinery, &c. MENT. Well acquainted with the Spanish languag Plans, Machinery, &c. Address, "H.," 144, Leadenhall-street, London, E.C.

THE PIONEER MINING COMPANY
(LIMITED).
TENDERS REQUIRED for ONE HUNDRED TONS of the BEST STEAM
COAL, to be delivered at the Nannerch, Bagillt, or Holywell Rallway Stations, at the rate of 30 tons monthly, and in quantities of not less than a wagon load or 10 tons at a time.

to the rate of 30 tons monthly, and in quantum to be made in eash monthly. Price to be stated nett on delivery, and payment to be made in eash monthly. Tenders to be forwa ded to the undersigned on or before the 20th inst. CHARLES C. ADLEY, Managing Director. 125 to 131, Palmerston Buildings, Old Broad-street, London, E.C.

REEVES A N D (ESTABLISHED 1872.)
STOOKBROKERS,
19, WALBROOK, LONDON, E.C.

INVESTMENTS IN STOCKS AND SHARES. Purchases and Sales of Home, Foreign, and Colonial Stocks and Shares made at the closest market prices either for cash or the fortnightly settlement.

Advances made on Stocks, Shares, and other negociable Securities at equitable rates of interest.

Speculative accounts opened on favourable terms.
Special Business in Gold Mining Shares.
C. T. R. and Co.'s Monthly Price List and Report on the Stock Markets sen

HORACE J. TAYLOR, STOCK AND SHARE DEALER,
(Late of the PORT PHILLIP AND VICTORIA [London] MINING
COMPANIES, Limited.)
38, GREAT ST. HELEN'S, LONDON, E.C.
BUSINESS TRANSACTED IN EVERY DESCRIPTION OF STOCKS AND

SHARES.

The following undertakings are recommended:—
BWLCH UNITED, WEST LISBURNE, AND WHEAL COATES.
The two former are Silver-Lead Mines, in Cardiganshire, and the latter a listine, in the famed St. Agnes district, and a great rise in prices is expected.

N.B.—I am a BUYER of 1000 BWLCH UNITED shares, or any part; and hareholders would do well to communicate before selling elsewhere, for I can be appliced.

shareholders would do well to communicate before selling elsewhere offer the VERY BEST OF PRICES. BANKERS: The CENTRAL BANK OF LONDON (Limited).

M ESSRS. THOMSON AND CO.,

STOCK AND SHARE DEALERS.

44, THREADNEEDLE STREET, E.C.

Business transacted in every description of Stocks and Shares.

TREVINCE CONSOLS.—Attention is called to the report in this day's Journs
An important rise in the price of shares must take place—price 22s. 6d.

A L S T O N A N D C O .

29, THREADNEELE STREET, LONDON, E.C.,
Have Agents throughout the United Kingdom and all parts of the World.
Intelligence obtained on Foreign Loans, Railways, Public Works,
Gold, Tin, Copper Mines, &c. HOME MINING INTELLIGENCE SUPPLIED FREE.

JOSEPH TOMS, STOCK AND SHARE DEALES,
No. 38, BISHOPSGATE STREET WITHIN, E.C.,
Can SELL the following SHARES at prices affixed:
30 East Rose, 5s. paid, 20 W. Craven Moor, £2. 5 Minera, £5½.
50 Pr. of Wales, 18s.
50 Gover Consols, off.wd 50 East Lovell, 28s. 9d.
150 Mysore Reef, 15s. pd., 50 New Trumpet, £2½.
11s. 10 North Hendre, £4½.
For an immediate and strong rise in prices, Great Holway, West Holway.
New Trumpet Consols, and Roman Gravels shares should be purchased.

CAPTAIN ABSALOM FRANCIS, M.E

THE CHILE GOLD MINING COMPANY .- As announced last w the issue of this company proved a great success, which is doubtles due to the great value of the property acquired, and the high chracter of the board of directors, elements which cannot fail to essure the success of the undertaking. The allotment of shares we promptly made, and it is evident the directors are determined the no time shall be lost in taking over the mines and bringing them in full operation. For this purpose Mr. James Stuart Trotter (one of the directors) and staff will leave for Venezuela on the 16th in We expect at no distant date to receive advices from these mine that will be of great interest not only to the shareholders of the company but also to those who are interested generally in mining for the precious metal.

BEDFORD UNITED BRIDGE LODE.—The lode in the 20, east west, is again improving, being almost out of the influen capel, which caused a temporary falling off in the value of the lod a further improvement is daily expected. Sinking the shaft will resumed on Monday by a full pare of men, and in a lode worth per fathom, the value when suspended for the purpose of mali-preparations for driving the ends. It is contemplated to employ preparations for driving the ends. It is contemplated to emple extra hands with a view to a more vigorous development of valuable property.

TREVINCE CONSOLS.—The important discovery in this mine during the past week will, it is believed, with other discoveries that his been made, soon put the mine in the Dividend List after the new sary machinery is erected, and will be the means of resuscitations and the contract of the means of resuscitations. some mines in the Gwennap district, also the working of unwrough ground on parallel lodes that have been immensely rich.

LADY BERTHA MINE.—The very important discovery and last week, we are informed, has further improved. The lode is feed to 10 ft. wide, with a value of 25 tons of arsenical mundic at 6 tons of copper ore per fathom, the money value of which is estimated at least at 50l. a fathom. The lode would appear to be en overlooked by former workers, and points to other value discoveries, which it is impossible to over estimate.

WEST POLBREEN.—Important intelligence has been received to in driving a cross-cut north of Wheal May shaft they have call branch producing good stones of tin. The peculiar features of the contract of the co mine are such as to call for attention.

POTE ing 1½ LASI agent a able, a ning to SOU! the tun ance. tendin which quartz that ap still lo At Bits After i

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There IND July 5 machin expect had car wall h slightl will be contract have a which pearan dip an side. amined vanced upon t slightl very h No. 2 t from n surface lieve th satisfac differe — U sion au got do EBE

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FOREIGN MINES.

POTOSI (GOLD).—Telegram: Quartz milled between 650 and 675 tons, yielding 1½ oz. to the ton. Remittance between 1000 and 1050 ozs.

LAST CHANCE CONSOLIDATED SILVER.—July 7: Telegram from their agent at Salt Lake: We have during last week run 26 ft. in tunnel No. 1 favourable, and run 17 ft. in Tunnel No. 2, vein matter with strings of good ore running through it.

ing 1½ oz. to the ton. Remittance between 1000 and 1000 ozs.
LAS1 CHANCE CONSOLIDATED SILVER.—July 7: Telegram from their a gent at Salt Lake: We have during last week run 26 ft. in tunnel No. 1 avourable, and run 17 ft. in Tunnel No. 2, wein matter with strings of good ore running through it.

SOURH INDIAN.—June 2: Workings: Good progress had been made in all the tunnels in all places. The reefs continue to have a most promising appearance. In No. 3 tunnel, where the reef appeared to be splitting, one portion tending towards the north-west, a cross-cut had been driven from No. 4 tunnel, which had struck within the last two days a very favourable-looking vein of quartz about 10 ft. from main reef, which is believed to be that part of the reef that appeared to be branching away in No. 3 level. In No. 6 tunnel No. 2 reef still looked well, had widened out, and was very rich in pyrites.—New Reef: A tunnel, No. 7, is being driven to intersect a reef to the south of the main operations, and had penetrated 35 ft. No. 3 (the Harvey adit) had been driven 87 ft. At Bittusal good progress had been made; nothing fresh to report.—Staff: After much sickness there was now a general improvement. One of the English miners, named Bennett, had died, after 10 days illness, of dysentery.—Labour: There is now a full force of native labour, both for day and night work.

INDIAN GLERROCK.—Report from general manager up to June 2, received July 5: Reduction Works: Considerable progress has been made in getting the machinery down to the works. All is on the property but one stamp box daily expected. Six of the pillars of the building are already erected. Heavy rain had caused the made ground in front of the building to sink, and the retaining wall had been damaged. Determined to alter the position of the building slightly to secure a greater extent of perfectly secure foundation. This change will be made without much expense, and the work had already been let out on contract. The main buildings will be pushed on with all possible speed.

the standing to the seath. The rock is very much broken, consisting of lime spar and olay and is quites. It ind occasionally a small spot of chloride of lead and silver. What we may come upon can be determined only by the continuance of work.—P.S.: My next point of operation will be in the John Wild North.

PIERREFITTE.—July 2: The manager reports as follows: There is no material change in the cross-cut north of No. 3 level; very good progress is being made in driving. The ground in No. 2 level by the side of the lode has improved for driving, and it is thought advisable to drive the level more on the side of the lode and the side of the lode in the side of the lode of

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compensated for by the quantity raised, this being the largest yetattained. The creturn shows 454-638 metric tons milled, and 488 oss. 15 dwts. 12 grs. of bar gold produced, an average of 1 oz. 1 dwt. 11 grs. per ton. The mine is now in thorough working condition, and the developing works are being pushed rapidly forward. The stope the back of this level south of cross-cut, to six men, at 50 marks per metre; the lode in the end is much improved, being composed of a very congenial quartz, and yielding some good stones of copper pyrites, and judging from its character generally we are looking forward to a still further improvement in this end, more especially seeing that we are approaching the ore-bearing ground in the 140. To cut through the lode in the 150 west of the level south of cross-cut, to four men, at 45 marks per metre; in the forebreast, the lode so far as cut into, has a beautiful appearance, and producing good stones of ore. This end will be pushed on with speed, so as to reach the hanging wall, at which point an improvement may be anticipated. To stope the back of the 140 metre level south of shaft, to four men, at 51 marks per metre; lode worth 52, per fathom for copper ore. The 140 metre level to drive north of new cross-cut, to four men, at 65 marks per metre; the lode is producing saving work for copper, and promising improvement. To rise in the back of this level east of new cross-cut, to six men, at 15 marks per metre; the lode is producing saving work for copper, and promising improvement. To stope the back of this level east of new cross-cut, to six men, at 20 marks per metre; to lode a little fallen off in value, and worthy only 92, per fathom. The stope the back of this level east of new cross-cut, to six men, at 12 marks per metre; lode of this development of the saving and the sav

level. The bottom is still down in quartzite, and very favourable ground for sinking. Repairs to the machinery or furnaces are being pushed as fast as possible. The engine foundation is completed, and frame will be put in place today.

SENTEIN.—During June the quantity of crude ore raised from the mine was 1375 tons (all tons are of 1000 kilos). Of this 1200 tons were sent to the dressing floors, and the quantity dressed was—ragging 1055 tons and tailings, 100=1165. The month's production was—First class lead, 70 tons; second, 25 tons; and of bened ore, 260 tons first class the last of the property of the month of the property of the month of the quantity dressed was—ragging 1055 tons and tailings, 100=1165. The month's production was—First class lead, 70 tons; second, 25 tons; and of bened ore, 260 tons first class lead, 70 tons; second, 25 tons; and of bened ore 100 kings and 100 kings a favourable as could possibly be wished in any mine. No. 2 end has been pushed on, and after several changes has at last got to more settled ground, composed of ore-bearing rock, not yet worth valuing, but the shifts are now doubled, in order to win the ore without loss of time. No. 4 end is also much improved, and may be valued at over 2 tons of lead and blende per fathom. No. 3 end is to be driven immediately to meet this shoot of ore, which evidently extends between the two levels, Nos. 2 and 4. At bottom of No. 4 level we have a splendid lock about 12 ft. wide, worth over 12 tons of lead and blende per outle fathom. The mining captain how being the find of ore at the two advancements, Nos. 2 and 4. Refly AND DUXDERBERG CONSOLIDATED.—Report on above mines for week ending June 12 — Dunderberg: The 700 ft. level has been advanced 13 ft., and a rise put up from the end of the work of the property of the prope

The annual report of the Neuchatel Asphalte Company of Dec. 31 last shows a profit of \$793!, from which 2000! has been set aside as a reserve fund. The balance remaining of \$6792! added to the amount brought forward gives a total of 15,587!. From this the directors recommend that a dividend of 4s. per share be paid on the preference shares, and that the balance be carried forward to next account.

The Newport Abercarn Coal Company will pay a dividend at the rate of 7 per cent. for the half-year, making with the interim dividend, 6 per cent. for the year, leaving a balance of \$6224!, to be carried forward.

The directors of the Bristol and West of England Bank have declared a dividend at the rate of 5 per cent, for the half-year ended.

dividend at the rate of 5 per cent. per annum, for the half year ended

An interim dividend at the rate of 8 per cent. per annum has been

The dividend at the rate of 8 per cent. per annual has been elared by the directors of the North-Western Bank, Limited.

The dividend to be declared by the Union Bank of London, at the musl general meeting, will be at the rate of 15 per cent. per annum, 10,000%, sing carried forward to next account.

Mr. Henry M. Evans has commenced business as a general advertised of the state o

tising agent at Jerusalem-chambers, Cowper's-court, Cornhill, after an experience of 24 years in the firm of **M**essrs. Charles Barker and Sons, Birchin-lane.

The Stock Exchange Committee have ordered the following securities to be marked:—Colar Gold Mining Company (Limited), 50,000 12, shares with 10s. paid, Nos. 25001 to 70,000. Tharsis Sulphur and Copper Company (Limited), 23,666 10. shares fully-paid, Nos. 68,231 to 21,896, to be added to those already in the list. Application has been made to the committee to appoint a settling day in, and to allow the following securities to be quoted in the official list:—Otago Harbour Board Loan, 100,000?. Six per Cent. debentures; Tocopilla Copper Mining and Smelting Company (Limited) shares.

EAST CHIVERTON.—The progress of this mine has been from time EAST CHIVERTON.—The progress of this mine has been from time to time noticed, and in following down the course of ore the prospects proved better; every level gained to the 74, where the lode being in every respect superior and the ground more settled than in the levels above, the executive in a spirited manner recommended that the shaft be sunk to a 90 fm. level. Here the lode was found as anticipated, now bidding fair to realise all that has been said of and expected from it. The lode is considered to be a continuation of the same that in West Chiverton Mine produced mineral between the 80 and 140 fm. levels, which gave nearly 160,000l. in dividends. East Chiverton has just sold 50 tons of ore, realising 13l. per ton, being within 30s. of the price of pig lead. As the 90 fm. level is only equal to the 80 in West Chiverton, it is believed that when the course of ore is followed down equally good results will be obtained. Time is money, and in mining this is especially the case, and with such rich quality ore there need be no such excuse as the low price such rich quality ore there need be no such excuse as the low price ruling for lead for not vigorously developing so fine a course of

VAN MINES (Llandloes) .- Richard Breeze, having been injured by a fall of stone, fell into a pass and was smothered by a small quantity of debris which fell upon him. Dr. Foster, the Government Inspector of the district, expressed his satisfaction as to the arrangements in the mine. A verdict of "Accidental death" was returned.

WEST OF ENGLAND MANGANESE.—Capt. Doidge, the manager at the mine, reports that he has driven last week 1 fm., making for the month of June 6 fms. driven. The Ley shaft is sunk 15 fms. 5 ft. The company have closed contracts with Messrs. Darlington and Co. for their rock-drills and air-compressing machinery.

UTILISATION OF FURNACE SLAG-SILICATE COTTON. - During the last three or four years considerable progress has been made in the utilisation of the vast quantities of slag that are made at our blast-furnaces. Paving blocks, building bricks, concrete, glass and glass bottles, are now made from it, as well as a far more delicate material known as slag wool or silicate cotton, which has been rather extensively manufactured at the Tees Ironworks. This peculiar material, like fleecy wool, has been chiefly used for covering steam-boilers and pipes, and for such purposes it is said it cannot be ex-celled, and in connection with it patents have been taken out. No one would think that such a fine material could be produced from the common slag, which cannot be disposed of or even given away at many places. Yet the process is alike simple and at the same time interesting. The slag is taken in its molten state from the furnace, many places. Yet the process is alike simple and at the same time interesting. The slag is taken in its molten state from the furnace, and as it is falling into the bogies or wagons a jet of steam is made to strike it, scattering it into shot, and as each shot leaves the stream carries with it a fine thread or tail. The shot being heavy falls to the ground, whilst the fine wooly fibre is sucked into a large tube and discharged into a chamber. By an arrangement the steam and air carry the wooly particles all over the chamber, which is very large, and covered with wire netting or size wire, and the finest portions and covered with wire netting or sieve wire; and the finest portions and covered with wire netting or sieve wire; and the finest portions go into recesses made for the purpose and the heaviest into the body of the chamber. After each blowing the material is selected and taken up with forks and put into bags or casks for sending away. When the process is completed the inside of the chamber presents a singular appearance, the wool, of a snowy white appearance, hanging all about like flakes of snow. For boiler purposes what are termed matrasses are made, being 2 to 3 ft. long, and 1 ft. wide, by 2½ in. in thickness. These are placed upon the boilers or pipes to be covered, being secured in the usual way. When laid upon the boiler

level. The bottom is still down in quartzite, and very favourable ground for sinking. Repairs to the machinery or furnaces are being pushed as fast as possible. The engine foundation is completed, and frame will be put in place today.

SENTEIN.—During June the quantity of crude ore raised from the mine was 1375 tons (all tons are of 1000 kilos). Of this 1200 tons were sent to the dressing floors, and the quantity dressed was—ragging 1065 tons and tailings, 100=1165. The month's production was—First class lead, 70 tons; second, 25 tons; and of blende ore, 260 tons first class, and 100 tons second. Owing to the severe weather leads or the second of the second of the severe weather to the dressing floors. Such are one of the uses to which common blende ore, 260 tons first class, and 100 tons second. Owing to the severe weather the second of the se

NEW METHOD OF EXTRACTING GOLD.

An invention for extracting gold and other metals from siliceous, aluminous, and other substances was patented by Mr. J. P. DUNKER, manufacturing chemist, of Glasgow, but the patent has become public property through his having neglected to file a specification in pursuance of the conditions of the letters patent. He states that for obtaining gold the quartz or other siliceous or aluminous substance containing it is smelted with a flux consisting principally of soda ash or potash, or a mixture thereof, and with charcoal or other suitable carbonaceous matter, and when the substances are in a melted state onaceous matter, and when the substances are in a melted state metallic copper and zinc are added, with the view of causing a development of electricity.

By these means the gold is brought to the metallic state, and may

By these means the gold is brought to the metallic state, and may be purified in the ordinary way. The copper employed may be in the condition in which it is precipitated in the wet process for obtaining copper. The same process is applicable for obtaining silver and other metals from ores and substances. The same process is also amployed for the obtainment of aluminium bronze. The aluminous residue or waste or clay is dried and ground, and then melted with a flux consisting principally of soda ash or potash, or a mixture ohereof, and with charcoal or other suitable carbonaceous matter, that copper and zine are added with the view of developing electricity. The aluminium is brought to the metallic state, and combines with the copper to form aluminium bronze. The smelting process may be conducted in ordinary crucibles or in pots such as are used qy glass makers, or in other suitable apparatus or furnaces

GAS ENGINES.—The engine invented by Mr. T. D. MACFARLANE, Glasgow, consists of a cylinder closed at one end and open at the of Glasgow, consists of a cylinder closed at one end and open at the other. The cylinder is provided with a piston and piston rod, the outer end of the latter passing through a guide on the engine framing. The connecting rod is coupled to the piston rod as close as convenient to the piston itself. At the closed end of the cylinder valves are provided for admitting the air and gas in the right proportions for forming an explosive mixture, and for discharging the exhaust or burnt gas, another valve being also provided for opening the communication between the gaseous mixture inside the cylinder and the pilot or igniting burner. The admission and the exhaust valves are preferably conical seated valves, and they are driven by means of tappet pieces on slide bars driven by an eccentric on the crank shaft: preferably conical seated valves, and they are driven by means of tappet pieces on slide bars driven by an eccentric on the crank shaft; the stems of those valves have springs mounted on them, the tendency of these springs being to keep the valve open. The valve stems are, therefore, kept constantly pressed against the surface of the tappet pieces, so that such variations as may be made on these tappet pieces produce corresponding motions in the valve, an essential point in the formation of the tappet pieces being that a portion of their surface shall be cylindrical or parallel so as to keep the admission valve and exhaust valve both closed from the time the explosion takes place until the termination of the outward stroke, at which point the exhaust valve is opened. A small valve is provided, which point the exhaust valve is opened. A small valve is provided, which at the time when it is required to explode the gases opens communication between the pilot burner and the interior of the cylinder. The suction of the piston draws in the flame of the pilot burner, and so soon as ignition or explosion commences to take place this communication is closed by the pressure of the exploded gas and air closing this valve back on its seat.

STEEL.-Recent progress in the manufacture and applications of STEEL.—Recent progress in the manufacture and applications of steel formed the subject of a paper read before the Society of Arts by Prof. A. K. Huntington, in which he maintained that the want of continuity between our nerve system and what we may call that of the world is fast becoming less and less. He stated that in all primitive methods of iron smelting steel, in more or less quantity, is inevitably produced. Cheap iron and improved methods are rapidly causing the Catalan furnace to pass out of use. Coming to more modern times, he mentions the inventions of Martien, Bessemer, and R. Mushet and others. In the discussion which followed Mr. Michael Scott contended that the use of manganese only covered the evils in the manufacture, but did not remove them. Mr. Shoolbred enquired Scott contended that the use of manganese only covered the evils in the manufacture, but did not remove them. Mr. Shoolbred enquired as to the capabilities of steel for constructive purposes as ascertained by Prof. Huntington. Mr. F. Maxwell Lyte thought the question of honeycombing which occurred in Bessemer steel castings might be discussed. Mr. Clements contested the opinion that eventually steel would be used for almost every purpose for which iron is now used. The Chairman (Mr. F. A. Abel), in proposing thanks to the lecturer, said that mechanical engineers and chemists had for years been engaged on the question of the definition of steel, and he believed every one would admit there was no satisfactory definition yet.

On A PURE COKE OBTAINED FROM COAL TAR PITCH.—Il have re-

On a Pure Coke obtained from Coal Tar Pitch.—I have recently had occasion to test a sample of coke, made from coal tarpitch, which I found to contain a very small percentage of sulphur. Since it is not generally known that coke of such purity is obtainable in such large quantities, it may be well to record the analysis:—Sulphur, 0·12, 0·11; ash, 2·43, 2·50; carbon, 9·7·45, 9·7·39 by difference. The sulphur was estimated by the prolonged boiling of the powdered coke, 5 to 6 grammes, with nitric acid and a little chlorate of potash. The ash was estimated by heating for several hours in a Fletcher's muffle furnace at a white heat. The sample of coke was taken from the ovens and powdered whilst hot, thus ensuring the absence of moisture. Several determinations of sulphur and ash were made with similar results. A noticeable feature of this coke is that on exposure to the weather, even for months, it does not slack or disinte-ON A PURE COKE OBTAINED FROM COAL TAR PITCH .- I have reposure to the weather, even for months, it does not slack or disintegrate. This is no doubt due to the small percentage of sulphur present, the cause of the slacking of most cokes—gas coke especially—being attributable to the oxidation of the sulphides of iron contained other actionable to the exidation of the sulphages of fron contained in the coke. The heating and burden carrying power of this coke in the furnace far exceeds that of the best Durham coke. From its hardness and close texture it is especially calculated to resist the action of the hot gases on the upper portion of the furnace, thus diminishing the loss.—W. W. STAVELEY, in Chemical News.

MANUAL COAL-CUTTING MACHINE.—The machine invented by Mr. H. RICHARDSON, of Backworth, Northumberland, consists of a frame or bud-plate of cast, iron costed fixed in position, or the floor.

frame or bed-plate of cast-iron or steel, fixed in position on the floor of the mine by upright stays screwed against the roof. This frame or bed-plate is fitted with a sliding block, moved forward or backor bed-plate is fitted with a sliding block, moved forward or backward upon guides by means of a nut working upon a screw extending from end to end of the frame or bed-plate. In the sliding block is fitted a mandril, armed with teeth of steel or wrought-iron, and caused to revolve by means of a ratchet attached direct to its outer end or by a winch handle or ratchet attached to spur gearing connected with the mandril. The ratchet lever or winch handle is operated by the miner from the side of the machine. As the mandril revolves the teeth cut into the coal or stone and are moved forward by the screw (receiving its motion by gearing connected with ratchet or winch handle) acting on the sliding block until the nut reaches the end of the screw, when the machine must be liberated and moved forward so that the cutting can be again proceeded with. The mandril being once inserted into the seam of coal or stone to the required depth from the face, and being set in motion, performs the work of undercutting the seam, technically called holing or curving, with safety to the miner and economy in making the required cut, without breaking the body of the coal, as is the case with ordinary hewing with picks.

with picks.

HOLLOWAY'S OINTMENT AND PILLS—CHEST AND STOMACH COMPLAIN'3S.—The source and centre of almost every aliment is impurity of the
blood; dislodge this poison and disease departs. Holloway's pills exercise the
inestimable power of thoroughly cleansing each component part of the blood,
and rendering this fluid fit to perform its important functions. They cope most
successfully with chest diseases, stomach complaints, liver disorders, and many
other maladies, which were once the besetting dangers of mankind at certain
seasons in town and country. The directions for use enable everyone to regulate
the operations of these pills with the greatest nicety. Chronic invalids, valetudinarians, and all whom other treatment has failed to relieve, are respectfully
invited to try Holloway's celebrated medicine, which will strengthen and cure

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CLIMITED).

NOTICE IS HEREBY GIVEN, that a GENERAL MEETING of the Members of the said company will be HELD at No. 8, Queen-street place, in the City of London, on MONDAY, the 25th day of July, 1851, at Two c'clock in the afternoon, when a resolution will be submitted:—
"That the company shall be wound-up voluntarily, and that Robert Taylor, No. 6, Queen-street place, shall be the Liquidator in such winding-up."
In the event of the above resolution being carried, the following Special Resolutions will be submitted to the meeting:—
"The proposition to transfer and sell the mines, businss, property, plant, machinery, stores, and effects of this company to a new company, to be called the Assheton United Mining Company (Limited), is hereby approved, and the Memorandum and Articles of Association produced to the meeting, and signed by the Chairman, are hereby approved as the intended Memorandum and Articles of Association of such new company."
"The Liquidator may carry out such transfer or sale as aforesaid, and may receive as compensation, or part compensation, for such transfer or sale, shares or other like interests in the Assheton United Mining Company (Limited), for the purpose of distribution among the members of this company, and may enter into other arrangements whereby members of this company may in lieu of receiving cash, shares, or other such like interests as aforesaid, or in addition thereto participate in the profits of or receive any other benefits from the Assheton United Mining Company (Limited)."
By order of the Directors,

ROBERT TAYLOR, Secretary,
Dated this 5th July, 1831.

IN THE MATTER OF THE COMPANIES' ACT, 1862, AND IN THE MATTER OF THE WEST ASSHETON MINING COMPANY

(LIMITED). NOTICE IS HEREBY GIVEN, that a GENERAL MEETING of the Members of the said company will be REVEN. of the Members of the gaid company will be HELD at No. 6, Queen-et-place, in the City of London, on MONDAY, the 25th day of Jul,, 1831, at o'clock in the afternoon, when a resolution will be submitted:— That the company shall be wound-up voluntarily, and that John Schofield, 8t. Stephen's Chambers, Telegraph-street, shall be the liquidator in such ding-un."

"That the company shall be above resolution being carried, the following Special Resolutions will be submitted to the meeting:—

In the event of the above resolution being carried, the following Special Resolutions will be submitted to the meeting:—

"The proposition to transfer and sell the mines, business, property, plant, machinery, stores, and effects of this company to a new company, to be called the Assheton United Mining Company (Limited) is hereby approved, and the Memorandum and Articles of Association produced to the meeting, and signed by the Chairman, are hereby approved as the intended Memorandum and Articles of Association of such new company."

"The liquidator may carry out such transfer or sale as aforesaid, and may receive in compensation, or part compensation, for such transfer or sale, shares or other like interests in the Assheton United Mining Company (Limited) for the purpose of distribution among the members of this company, and may enter into other arrangements whereby members of this company may in lieu of receiving cash, shares, or such other like interests as aforesaid, or in addition thereto, participate in the profifs of or receive any other benefits from the Assheton United Mining Company (Limited)."

By order of the directors,

ROBERT TAYLOR, Secretary.

THE AUSTRALIAN MINING COMPANY
(Incorporated by Royal Charter),
Notice is hereby given, that the THIRTY-SITH ANNUAL GENERAL
MEETING of the Shareholders of this Gompany will be HELD at the Guildhall
Tavern, No. 32, Gresham Street, E.C., on MONDAY, the 25th instant, at One
o'clock P.N. precisely, to receive the Report, Accounts, and Balance-sheet for
the past year; to Elect Directors in lieu of Henry Collier and Walter John
Charles Cutbill, Esquires, who retire by rotation, and offer themselves for reelection; to fix the remuneration of the Auditors for the past year; to elect
Auditors for the present year.

By Order,
U. P. HARRIS, Secretary.
N.B.—The Transfer-books will be closed from the 16th to the 30th instant, both
days inclusive.

days inclusive. 1, Coleman-street Buildings, Moorgate-street, E.C., July 8, 1881.

I N E "E L C A L L A O, GUAYANA, VENEZUELA.

COUPONS OF SHARES.....

Gold in bars produced in the month of May, 1881, and remitted of Messrs. Baring Brothers and Co., London, 6624-69 ozs.

DIVIDENDS distributed for each coupon, \$100.

(Signed) A. J. CAGNINACCI, Vice-President.

(Signed) VICTOR J. GRILLET, Treasurer.

LAS CALDAS FREEHOLD MALACHITE COPPER MINING COMPANY (LIMITED).

Business in these Shares at close Market Prices.

Messrs. WARD AND CO., 184, PALMERSTON BUILDINGS OLD BROAD STREET, LONDON.

GLASGOW AND THE HIGHLANDS. OYAL ROUTE VIA CRINAN AND CALEDONIAN CANALS

by Royal Mail Steamer, COLUMBA or IONA, from GLASGOW daily at
7 a.m., and from GREENOCK at 9 a.m., conveying PASSENGERS for OBAN,
NORTH and WEST HIGHLANDS.

Official Guide Book, 2d.; Illustrated Copies, 6d. and 1s., by post, or at Euston,
5t. Paneras, King's Cross Railway Bookstalls, London.

Bill, with Map and Tourist Fares, free by post, from the Owner, Mr. DAVID
MACBRAYNE, 119, Hope-street, Glasgow.

A LEXANDER SMITH, M. Inst. C. E., CONSULTING ENGINEER and VALUER of IRONWORKS, MINING, RAILWAY, ENGINEERING, and other PROPERTY, PLANT, and MACHINERY,

1, PRIORY STREET, DUDLEY.

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the larges valuations that have taken place in the kingdom

Valuations for Stock Taking or any other purpose upon very reasonable terms.

THE "JAMIN" PATENT ELECTRIC LIGHT

COMPAGNIE GENERALE D'ECLAIRAGE ELECTRIQUE. Capital, 8,000,000 Francs.

Proprietors of the Gramme Patent Machine for Alternate Current J. A. BERLY, C.E., A.S.T.E., &c.,

Engineer, and Sole Agent for Great Britain and the Colonies 16, NEW BRIDGE STREET, LONDON.

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MINERAL BROKER AND GENERAL COMMISSION AGENT, ROCHE, CORNWALL.

GROUND MINERAL COLOURS. OCHRES. CHINA-CLAY. Correspondence solicited. ING INQUIRY OFFICE 262, GRESHAM HOUSE, E.C. THE MINING

CARTER STOCK AND SHARE DEALERS, ARTER AND CO., STOCK AND SHARE DEALERS, S, UNION COURT, OLD BROAD STREET, LONDON, Know of two or three Mines well situated and well managed, having abundance of mineral, which they can strongly recommend to intending investores for a substantial rise, and for good dividends.

Those desirous of making a good investment will do well to write to CAETER and Co. for particulars.

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16, ST. SWITHIN'S LANE, E.C.
Mr. THOMPSON transacts business in every species of Stock Exchange and

lining Securities. Mr. TROMFRON affords reliable information to investors, and can give v esired, a list of first-class Stocks and Shares, yielding 4 to 10 per cent. divid upon present prices.

Mr. Thompson's weekly Circular may be had on application.

MESSRS. THOMPSON AND SON, STOCKBROKERS, PLYMOUTH, have for sale the undermentioned share, for which offers are
requested for any portion:—100 West of England Peat Company; 50 Devonport
and Tiverton Brewery; 50 Tin Hill Mine; 50 Forteseue Stannagwyn; 75 Lomax,
Old Wheal Rose, 10 per cent. div.; 25 West Pateley Bridge; 10 Roman Gravels;
75 New Penrose, 128. 6d, paid; 50 ditto, fully paid; 50 Frongoch; and numerous others, a list of which can be had on application.

MESSRS. J. TAYLOR AND CO.,
MINING ENGINEERS AND INSPECTORS,
\$5, LONDON WALL, LONDON, E.C.,
Have Agents in the various Mining Districts of Great Britain, the Continent,
Australia, and the United States of America.
Inspections undertaken, either personally or by our Agents, and Reports or
Advice as to Working given.

CAMBORNE PARISH, CORNWALL.

MESSRS. R. MCTEAR AND CO., Auctioneers, Glasgow, WILL SELL BY PUBLIC AUCTION, at No. 12, St. Vincent-place, Glasgow, on Monday, the 18th day of July, 1881, at Two o'clock, afternoon, the

on Monday, the 18th day of July, 1881, at Two clock, atternoon, the

MACHINERY AND MATERIALB

belonging to the SOUTH ROSKEAR TIN AND COPPER MINING COMPANY, with the legal or equitable interests of the company in the leases or setts on which the mine or mines belonging to the company known as South Roskear Mine are worked, as a going concern.

Particulars and conditions of sale may be had of NATHANIEL SPENS, C.A., 12, St. Vincent-place, Glasgow; ANDERSONS and PATTISON, Solicitors, 137, St. Vincent-street, Glasgow; GROGGE H. BARRIER, Solicitor, 34, Old Jewry, London, E.C.; and Capt, JAMES HOSKING, Roskear Villa, Camborne, Cornwall.

1st July, 1881.

In the High Court of Justice-Chancery Division.

FOSTER v. FOSTER.

DURHAM. THE RAISBY HILL LIMESTONE QUARRIES AND LIMEWORKS.

THE RAISBY HILL LIMESTONE QUARRIES

AND LIMEWORKS.

A VERY VALUABLE AND IMPORTANT PROPERTY,
comprising about 123 acres of FREEHOLD LAND, and a LEASE extending over about 1850 acres on the GARMONDOWAY MOOR ESTATE. It is
situated about five miles east of Ferry Hill, and seven miles from Durham. The
North-Eastern Railway, with which the Quarries are connected, affords a ready
outlet to the ironworks of Cleveland, Middlesborough, and the Tyne.

The Quarries are in full work, and present from east to west an open face of a
mile in length. The above contains a large percentage of carbonate of lime, and
but little magnesia. It is well known in all respects as of the best quality for
use in the blast-furnace as a flux for the manufacture of ixon, and it is also an
excellent lime for agricultural and building purposes. The present sale is on an
excellent lime for agricultural and building purposes. The present sale is on an
excellent lime for agricultural and building purposes, while the direct communication with the north-Eastern Railway facilitates the delivery of any
quantities with the utmost promptitude and regularity.

The upper bed of lime is particularly suitable for the manufacture of basic
brieks, and a licence, which will be assigned to the purchaser, has been granted
by Mr. T. Gilchrist Thomas for their manufacture, and they could be turned out
on this ground at a very small cost. The necessity for these bricks in lining the
converters under Mr. Gilchrist Thomas's patent for making steel is opening up
an advantageous source of utilisation of the upper strata of the limestone and
a very profitable trade, as the manufacture of steel must soon become the first
industry of the country. In connection with the works, and included in the
sale, is a comfortable manager's residence, cottages for quarrymen, and stabling.

The above IMPOPTANT PROPERTY will BE SOLD by Mr. JOHN WHITT
TAKER ELLIS, of the firm of Farebrother, Ellis, Clark, and Co., at the Station
Hotel, Newcastle-on-Type, on Saturday, the 6th day of Augu

Orders to view may be had on application to Messrs. TRINDERS and CURTIS HAYWARD; or Messrs. FAREBROTHER, ELLIS, CLARK, and Co.

O ARESFIELD COLLIERY AND ESTATE, comprising 1900 acres, more or less, of FREEHOLD COAL; 500 acres, more or less, of FREEHOLD COAL; 500 acres, more or less, of FREEHOLD FIRE-CLAY; 50 acres, more or less, of LEASE-HOLD COAL; 570 acres, more or less, of LEASE-HOLD FIRE-CLAY; and 500 acres, more or less, of LAND; and the MINES OF COAL under the estate of Ravenside, containing 255 acres, more or less, all situate in the parish of Ryton, in the county of Durham, will be

OFFERED FOR SALE, BY PUBLIC AUCTION,

At Newcastle-upon-Tyne, on or about the FIRST WEEK in AUGUST, 1881.

Further particulars and information will be given in future advertisements and can be obtained from Messrs. J. and F. Anderson, W.S., 48, Castle-street Edinburgh; Messrs. J. and G. H. Gedder, Mining Engineers, Edinburgh; Messrs T. and R. Arnstrong, Land Agents, 14, Hawthorn-terrace, Newcastle-upon-Tyne; WM. Green, Esq., Mining Engineer, Thornelly House, Blaydon-on-Tyne or Messrs. Clayton and Gibson, Solicitors, Guildhall, Newcastle-upon-Tyne.

TO MINING CAPITALISTS.

TO BE OBTAINED, on reasonable terms, the GRANT of an EXTENSIVE and MOST PROMISING TRACT of MINERAL GROUND, situate in Devonshire, between the Devon Great United and the Great Wheal Martha Mines, and in the immediate vicinity of the Devon Great Consols, the main lode of the latter passing directly through this property. From a shaft only 20 fms. deep quantities of arsenical mundic, copper, and tin ores have been raised. Full particulars of "X. Y. Z.," 37, Walbrook, E.C.

TO CAPITALISTS, PROMOTERS, &c.

TO BE DISPOSED OF, ON LIBERAL TERMS, the LEASE of a FIRST-CLASS ROOFING and SLAB SLATE QUARRY, in the Delabole district, now out of work. Facilities for shipment direct from the Pit. For particulars to treat, apply to Mr. Thos. CRAPP, St. Columb, Cornwall.

TO CAPITALISTS AND OTHERS. TO BE LET, WITH IMMEDIATE POSSESSION, direct from the landlord, a VERY VALUABLE

ANTHRACITE COLLIERY, Situate in GLAMORGANSHIRE, within easy access by canal of the Ports of Neath and Swansea, and within half a mile of the Great Western Railway, with which a communication can easily be made.

The Colliery is in working order, and an extensive tract of the well-known Nine-feet Seam has recently been opened upon.

For further particulars, apply to T. B. Allison, Aberpergwm Estate Offices, near Neath, Glamorgan.

RAILWAY WAGONS.

POR SALE,—FIFTY SECOND-HAND 8-ton WAGONS, built to a first-class specification, and now in thorough repair.

For particulars as to price, and to inspect the wagons, address "E. M.,"
MINING JOURNAL Office, 28, Fleet-street, London. E.C. FOR SALE,—ROOTS' PATENT BOILER, 60 H.P. Safe and

sure, in good condition. Only wants erecting.
Apply, Elkington and Co., Newhall-street, Birmingham.

ON SALE,—COMPRESSING, PUMPING, OR WINDING ENGINES,—SECONDHAND PAIR of 26 in, HORIZONTAL ENGINES; SECONDHAND PAIR DITTO, 43 in, diameter, sold together or separate, EDWARD RATCLIFFE, HAWARDEN.

ON SALE,—SECONDHAND WINDING ENGINES IN PAIRS cylinders from 10 to 26 inches diameter.

EDWARD RATCLIFFE, HAWARDEN. ON SALE,—THREE GALLOWAY BOILERS, 30 ft. by 7 ft., with all recent improvements. FIFTY other BOILERS, various sizes, ready for delivery. Price List on application.

EDWARD RATCLIFFE, HAWARDEN, NEAR CHESTER.

TO CAPITALISTS, &c.

FOR SALE, a VALUABLE LIGNITE BRIQUETTE FACTORY, with the attendant LIGNITE COLLIERY, and all necessary APPARATUS and MACHINERY for the MANUFACTURE of the BEST LIGNITE BRIQUETTE only. The vein of coal is estimated as sufficient to last for centuries without only. The vein of coal is estimated as sufficient to last for centuries without additional supply.

Situate in immediate proximity to a railway station in Bohemia, it stands upon the German frontier, and has no competition in its trade.

For particulars, apply to P. Backer, Darmstadt in Hessial.

s, appry

FOR SALE OR HIRE, ONE HUNDRED to TWO HUNDRED or MORE 3½ and 4-yard END TIP WAGONS; also several 8 in. and 13 in. cylinder TANK LOCOMOTIVES, and other CONTRACTOR'S PLANT, equal to new. equal to new.

Apply, John Dickson, Jun., or A. C. Betts, New North Works, Bootle, near

PARE MACHINERY AND MATERIALS FOR SALE, BY
PRIVATE CONTRACT, at GOOLE PELLAS MINES, St. Ives, Cornwall.
ONE 40 in. PUMPING ENGINE, new cylinder, spring ring, &c., with or
without BOILERS.
ONE 30 in. STAMPING ENGINE, complete; and a 22 in. ditto.
Sundry HOLLERS, in first-class condition, from 11 tons down to 7 tons.
Large balance and angle bobs, nearly new; new and lofty shaft tackles; dry
tubes; 200 ims. of 34 mild steel wire rope—new from maker, never used; a large
quantity of pikwork, from 10 in. down to 6 in.; new plunger poles, from 10 in.
down to 7 in.; strapping plates, various sizes; a large quantity 2 ft. shleves;
and other materials in general use in mines.
For particulars and prices, apply to Capt. Bugelhole, West Providence Mines,

For particulars and prices, apply to Capt. Bugelhole, West Providence Mines, St. Ives, Cornwall.—Dated May 2, 1881.

FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE; with on reversing gear, has drum and gearing complete for winding nd pumping.
A 14 H.P. PORTABLE WINDING and PUMPING ENGINE.
Also a 6 H.P. PORTABLE HOISTING ENGINE.

BARROWS AND STEWART, ENGINEERS, BANBURY.

WANTED, an UNDER-MANAGERSHIP in a FOREIGN
LEAD MINE. The Advertiser is experienced in Surveying, Levelling, given.

References can be supported by the support of the suppo ziven. Address, stating salary, "E. J.," MINING JOURNAL Office, 26, Fleet-street, E.C.

FOR SALE,—THIRTY WEST HOLWAYS, at TWENTY-FOUR SHILLINGS PER SHARE.
Address, "S. J.," MINING JOURNAL Office, 26, Fleet-street, E.C.

PAIR OF PUMPING ENGINES, coupled, \(\frac{1}{4}\) in. centres, cylinden 13 in., stroke 24 in. Second-hand, in good condition.

Apply to John Crowley and Co., Meadow Hall, near Sheffield.

ROBEY ENGINE WANTED.

ANTED, a ROBEY ENGINE WANTED,
thorough good order, to be delivered at Tavistock Railway Station, or
at a Wharf on the River Tamar. This engine is required for the purpose of
DRIVING ROCK DRILLS.
Apply to Mr. Peter Watson, 18, Austin Friars, Old Broad-street, London, E.C.

ANTED, a MINE AGENT, CLERK, ONE MINING CARPENTER, ONE SMITH, and ONE PITMAN to proceed to NORTH Reply by letter to "Secretary, Gold Hill Mines (Limited)," 36 to 39, Palmerston Buildings, London, E.C., stating previous employment, wages required, and giving full particulars as to capability, &c. Copies only of testimonials to be forwarded.

WANTED, ONE or TWO PARTNERS, with £15,000, to TAKE the PLACE of TWO RETIRING in a SCOTCH CANNEL or GAS COAL and IRONSTONE FIELD, extending to 647 acres. The minerals are of superior quality, having the blackband ironstone and cannel coals of the Lesmahagow section.

The collection. Every end of the works.

The collection of the works.

For further particulars apply by letter to George Pratt, 2, Elmbank-stree,

TO MINING ENGINEERS.

AN AMERICAN MINING ENGINEER, enjoying a large practice in California, Nevada, Idaho, Utah, Colorado, Arizona, Mexico, and New Mexico, DeSIRES to EFFECT an ARRANGEMENT with an English Mining Engineer, having an office in London, to TAKE ORDERS for the EXAMINATION OF MINES in the above-named States and Territories.

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TO MINING COMPANIES.

A N ENGINEER, who has had 20 years' experience in large Mines at home and abroad, will be OPEN SHORTLY to a RE-ENGAGEMENT. High testimonials for Machinery and general Mining ability. French and German. Age 38. Ferman. Age 35.
Address, "Engineer," Bolingey, Truro.

PROMISING MINES.—WANTED AN OFFER FOR—

150 TREVINCE CONSOLS.

100 EAST DEVON CONSOLS.

200 NORTH HERODSFOOT.

A sale of the above Shares being imperative, no reasonable offer will be refused regardless of quoted prices. Two days required for reply, as the seller reside distant from London

istant from London. Apply to "A. B. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.

TOCKS A N D SHARES FOREIGN BONDS, RAILWAYS, TRAMWAYS, GAS, INSURANCE IRON, COAL, and MISCELLANEOUS SHARES.

Prices, with reliable information, forwarded on application to—

MESSRS. H. R. LEWIS AND CO.

BARTHOLOMEW HOUSE,

BARTHOLOMEW LANE,

LONDON, E.C.

SPECIAL INFORMATION in the SELECTION of MINING SECURITIES

The "MONTHLY INVESTMENT LIST" and the "Weekly Prick List."

may be had on application.

MR. CHARLES WILLIAMS, MINING ENGINEER AND SURVEYOR, DOLE HOUSE, TALLESIN, R.S.O., is at all times in POSITION to FURNISH CAPITALISTS WITH RELIABLE INFORMATION is the SELECTION of MINING PROPERTIES in CARDIGANSHIRE and NORTH WALES. Investors will do well to consult the above before laying out money in the districts named.

MR W TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.,
Deals in all descriptions of STOCKS and SHARES at close market prices, and is always in a position to do business in SANTA BARBARA, PITANGU, and BRAZILIAN GOLD MINES.

CAPT. JOHN PHILLIPS, of the Oola Hills Lead Mines, Co.
Limerick, Ireland, has SPECIAL MINING BUSINESS in CCRNWALL
and DEVONSHIEE for the next three weeks. He begs to offer his services to
Private Gentlemen or Mining Companies to INSPECT and REPORT on any
MINE, MINES, or MINERAL PROPERTIES, and he will fathfully, honestly,
and fearlessly execute any orders that may be entrusted with him.
All orders to be addressed to JOHN PHILLIPS, Post Office, St. Newlyn East, in
Grampound Road, Cornwall; or to Mining Offices, No. 8, Frankfort-street, Phymouth, Devon.

Satisfactory references can be given, if required.

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The President, the Right Hon. Earl SPENCER, K.G., will take the chair at 4:30 P.M., supported by the Right Hon. Earl Granville, K.G. the Right Hon. G. Dodson, M.P., Sir James Paget, Bart., F.R.S., and John Eric Erichsen, Esq., F.R.S.
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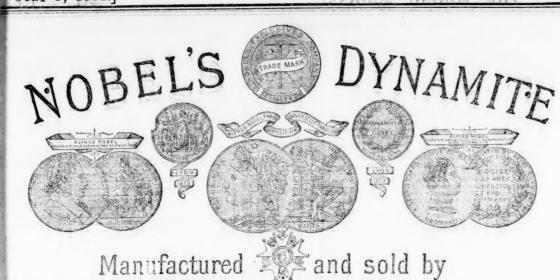
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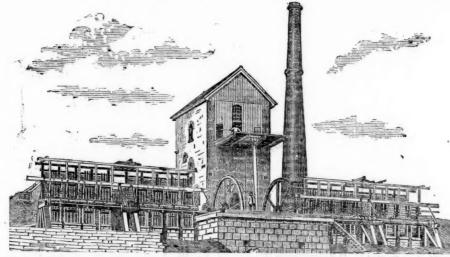
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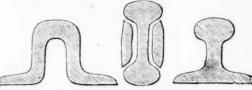
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0000 Caron 4. Cardigan* 2 C	0 2 1 2 0 4 0 0 2 0Oct. 1878
6000 Carn Brea, c, t, Illogant 9 7	11 241/4237/8 241/8 51 11 8 0 5 0Apr. 1881
10240 Devon Gt. Consols, c, a, Tavistock*† 1 0	0 10 9 10118 7 0 0 6 0Dec. 1880
4296 Dolcoath, c, t, Camborne 10 14	10 56345834 59121 11 3 1 0 0May 1881
6400 East Pool, t, c, Illogan 0 9	9 3714 37 3714 23 17 9 1 0 0 May 1881
12500 Frongoch.* L. Carden (11000 sh.iss. 2 0	0 4¼ 3¾ 4¼ 0 4 0 0 2 0Jan. 1881
40000 Glasg. Car., c* [30000sh. £1 pd., 10000 15s.	pd.] 11/8 11/8 11/4 0 13 10 0 0 6Aug 1878
8500 Gorsedd and Merllyn Con., 4, Flint. 2 10	0 3 21/2 3 0 5 0 0 5 0 Aug. 18//
15000 Great Laxey, l, Isle of Man*† 4 C	0 19 18 19 27 0 0 0 6 0Apr. 1881
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20000 Mining Co. of Ireland, cl, c, l* 7 0	0 214 2 214 24 0 0 0 2 6Jan. 1880
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11829 North Hendre, l, Wales 2 10	0 6 534 6 3 12 6 0 2 6 May 1881
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512 South Caradon, c, St. Cleer 1 1 5	0 60 55 60 749 0 0 1 0 0 July 1880 6 934 934 934 8 7 0 0 5 0 Apr. 1881
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	FOREIGN DI	VIDEND	MINES.				
35500	Alamillos, l, Spain*† 2 0	0 134	11/ 13/	. 2 2	9 0 0	9. Mar.	1881
	Almada and Tirito Consol., s*t 1 0		1/6 3/6	0 6	3 0 1	0May	1876
	Australian, c, South Australiat 7 7	6 134	13/ 13/	1 5	6 0 2	CAug.	1880
	B'rdseve Creek, q, California* 4 0	0 2	134 176	0 18	0 0 2	0June	
	Cape Copper Mining, *† South Africa 7 0	0., 444	2 44 xd	42 7	6 1 0	0Mav	1881
	Cesena Sulph. Co., Romagna, Italy* 10 0	0	***	. 1 1	0 0 1	0Aug.	1879
	Copiapo, c, Chili* (£4 shares) 3 3	0 31/6	23/4 3	1 13	9 0 1	0May	
	English & Australian, *tc, S. Aust 2 10	0 11/2	11/4 11/4 .	. 2 18	9 0 1	0Mar.	1880
	Fortuna, I, Spain*t 2 0	0 434	41/4 43/4	. 7 17	2., 0 1	9Mar.	1881
60000	Frontino & Bolivia, g, New Gran.*† 2 0	0 41/4	31/4 41/4	. 0 8	0. 0 2	0Jan.	1881
200000	La Plata, s-l, Leadvillet 2 0	0 11/	1 114	. 0 6	9 0 0	4June	
15000	Linares, l, Spain*† 3 0	0 636	5% 6%	. 18 14	10 0 4	0Mar.	
66000	New Quebrada, c, Venezuelat 5 0	0 514	434 5%	. 0 2	6 0 2	6July	1880
1000	Ditto, Debentures100 0		98 101	. 6	per cent.	***	
3000	Oregon, g, Oregon, U.S. (pref. sh.) 4 0	0		. 0 2	6 0 2		
	Panuleillo, c, Chili*† 4 0	0 6	5% 6%	0 13	3 0 4	0Apr.	
	Pitangui, * g, Brazil (in. 6000 £1 pd). 0 10	0	***	0 1	0 0 1	0Sept.	
	Pontgibaud, s-l, Francet 20 0	0 15	12 14	. 28 17	6 0 7		
	Port Phillip, g, Clunes*†(£2 shares) 1 0	0 34	1/4 1/2	. 1 14	2 0 0		
	Richmond Consol., s, Nevada*† 5 0	0 1714	16 1634	. 12 1	6 1 0		
	Rio Tinto, *c, Sp.Coup.Bds., Huelva.100 0	01011	00 102	5 1	er cent.	July	
225000	Ditto, shares 10 0	0 211	191/2 201/4	. 0 18	0 0 8	0Nov.	1880
	Santa Barbara,* g, Brazil 0 10	0 2	134 2	. 0 11	9 0 1	0June	1880
	Scottish-Australian Mining Co.*† 1 0	0 134	1% 1%	. 1	5 p. cent. 5 p. cent.	Nov.	1880
80000	Ditto, New 0 10	0 3/8	78 /8	. 13	p. cent.	Nov.	1880
50000	Sentein, * s-l, bl, Ariège, France 1 0	0 1	13 1	. 0 2	0 0 2	UJan.	1880
	Sierra Buttes, g, California*† 2 0	0 138	198 198	. 2 1	6 0 1	OOet.	1880
40625	Ditto, Plumas Eureka 2 0	0 278	21/2 2/4	. 2 10	0 0 3	UOct.	1880
253000	St. John del Rey*†(£5 Stock and multiple	dealt in)	213 223	0 p	c. for half-	year, Dec.	1000
92566	Tharsis,* c, sul, Spain (31000 s. 7l.p.)† 10 0	0 414	11/3 42/3	1 10	0 2 10	0June	1001
	Tolima,* g, s, Colombia 5 0	0	**	0 12	10 0 0	8Feb.	1001
	Victoria* (London), g, Australia 1 0 Western Andes, s, Colombia 5 0	0	**	2 18			
15000	TW Deveston (5500 prof sh 610 pd) 10 0	0 101/	10 101/2 "	4	J 0 8		
2100	W. Prussian (5500 pref. sh. £10 pd.) 10 0	0 1073	10 10/2	-13	v v 0	vapr.	1001
	§ Have made calls sin	ce last divid	lend was p	aid.			

	NON-DIVIDEND BRITIS			INE	s.	
Shares 30000	Alston United, * l, Cumberland	P	aid.	La:	114114 114	20
12000	Assheton, I, Carnarvonshire*	5	0	0	1¼1¼ 1¼ ¼ ¼ ¼ 1¼1% 1¾	10
10000	Atlantic,* c, l (res. shares 28,000)	1	0	0	1¾1% 1¾	12
11583	Bedford Unit.,* c, Tavis.(£1 liab.)	ō	8	0	21/6 17/8 2	50
8000	Blaen Caelan,* l, Cardigan	3	0	0		6
30000	Blackburnbanks & Gildersdale, 1 Rodidria * 1. hl. Denbighshire	1	5	0	36 36 36	8
10000	British, s-l, Wrexham	2	0	U		4(
20000	Bwlch United,* l, Cardigan	0	17	0	3¼ 3 3¼ 2¼ 2 2¼	80
50000	Cambrian, * s-l, c, Cardiganshire	2	0	0		11
6000	Carn Camborne, t, c, Camborne	0	8	0	3½ 3 3½ 1½ % 1½ 1½ 1 1½	45
6000	Cathedral Cons., c, t, Gwennap	0	0	0	1% 1 1%	6
20000	Central Foxdale, l, I. of Man (2l. sh).	1	17	6		12
25000	Cook's Kitchen, t. Hlogant	30	0	9	1¼ 1 1¼ 16¼16 16½	30
15500	Court Grange United*, s-1	1	0	0	-:	12
14000	Crook Burn, * 1, Cumberland	0	12	6	76 34 76 114 34 114 50 2 3 3 214 234 114 114 114	100
1536	D'Eresby Mountain, l, bl, Llanrwst.	20	0	0	50 2 3	10
20000	Denbighshire Consolidated,* 1	3	0	0	321/2 23/4	10
1000000	Devon.* c, bl. Tavistk. (151652 iss.)	ō	1		s.4d 1s. 4d.	12
60000	Devon Friendship,*c, Tavistock	1	0		11411/8 11/4	30
20000	Devon Great United* (21. snares)	1	0	0	11/413/4 2	50
50000	Drakewells,* t, c Calstock	1	0000	0	76 1 11/8	30
10000	Dubby Syke, l, Durham*	1	5	6	5.4d 19. 4d 1141½ 1½ 11½1½ 2 114 1 1½ ½ 1 1½ ½ 1 1½ ½ 1 1½ ½ 1 ½ ½ 1 ½ ½ 1 ½ ½ 1 ½ ½ 1 ½ ½ ½ ½ ½ ½	35
6000	East Botallack, t, St. Just	0	8	0	114114 114	1
6144	East Caradon, c, St. Cleer	3	14	0	2414 24	40
30000	E. Craven Moor.* l. Pateley Bridge	1	0	9	1 3/ 1	1
12000	East Crebor, c, Tavistock	0	10	0	1 ¼ 1 ½ ¾ ½ 3 2½ 3 1½ 1¼ 1½ 1½ 1¼ 1½	
30000	East Devon Cons., c, Buckfastigh.	2	0	0	1% 1% 1%	40
20000	East Long Rake,* l, Wales	1	0	0	1%1% 1%	2
21000	East Roman Gravels,* l, Salop	0	15	0	12/ 74 .78	1
4096	East Wheal Buller, t, c, Gwennap	0	10	0	14 1/2 1/4	1:
2098	Devoisinte, **, Loyatook Dubby Syke, *, Durham* Least Blue Hills *, * 5k. Agnes East Bate Hills *, * 5k. Agnes East Bate Hills *, * 5k. Agnes East Botallack *, * 5k. Just East Chiverton, * 1, Perranzabuloe East Chiverton, * 1, Perranzabuloe East Chiverton, * 1, Perranzabuloe East Crebor, * 2, Tavistook East Devon Cons. ** 2, * Buckfastigh East Herodsfoot, * 3, * Liskeard East Herodsfoot, * 3, * Liskeard East East Roman Gravels, * 1, Salop East Wheal Buller, * 1, * 2, Gwennap East Wheal Buller, * 2, * 3, Gwennap East Wheal Rose, * * 1, Newlyn East Fortesoue (Stannagwyn, * 3 or Gowton, * 2, * 1, Taintono Goddards, * 1, * 2, Carnaryon Goddards, * 1, * 2, Carnaryon Goddards, * 1, * 2, Carnaryon Great Dyliffe* (10000 sh. issued) Great Holway, * 1, * Flintshire Great Polyonty Myndd, * 2, * 1, Flintshire Great West Chiverton, * 1, St. Agnes, Gwern-y-Mynydd, * 2, * 1, Flintshire Gwydyr Amal, * 1, * 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	14	3	6	1% 14 34 2 1% 2 1% 1% 1% 2% 2% 2%	10
100000	Fortescue (Stannagwyn,)* var	i	0	0	2424 24	3
12000	Gawton, * c, Tavistock (2l. shares)	1	14	U		1
30000	Gobbett.* t. Lartmoor	1	0	0	54 14 14 141% 14	2
10000	Goddards,* l, b, Carnarvon	1	0	0	1¼1½ 1¼ 1¼1½ 1¼ 1¼1½ 1¼	1
25000	Griffin *s./ Carparyon	1	0	0		1
20000	Great Dyliffe* (10000 sh. issued)	1	0	0	1½ % 1½ 5½ 5 5½ 1¼ 1 1½	1
12000	Great Polycoth United * t	5	0	U	5½ 5 5½ 1¼ 1 1¼	1
6000	Great West Chiverton, l, St. Agnes.	Ô	5	0	78 74 78	i
10000	Gwern-y-Mynydd,* s-l, Flintshire	4	0	U		2
6400	Harwood,* l, Durham	î	0	0	10 10	
12000	Herodsfoot, l, near Liskeardt	0	12 12 0	9	76 34 76 114 1 114	3
20000	Kirkmichael.* (2000 unissued)	1	0	0	11/2 1 11/2	
6000	Killifreth, t, Chacewater	4	0	0		1
15000	Lady Ann. s-l. Llanarmon	1	15	0		
30000	Lady Ashburton,* s, Callington	1	17	U	156136 158	1
15000 2500	Levant c. t. St. Just	11	10	6	15% 11/2 15/8	
15000	Llandegla,* l, Wales	1	0	(1)	1½ ½ 1½ 1½ 1 1½ 1½ 1 1½ 1½ 1½ 1½	
10000 5120	Lowell t Wendron	0	16	0	14 14 14	1
9000	Marke Valley, c, Linkinhorne!	5	19	6	11/211/8 11/4	5
6000 28000	Medlyn Moor, t, Wendron	3	15	8		١.
15000	Monkstown,* man, Devon	2	0	U	25%23% 25%	;
20000	Mostyn Consols,* s-l, Flint	1	0	0	4 31/4 4	1
10000 25000	Rit Hill Gt. Cons.**, ars-m, (21. sh.) Lady Ashburton, **, Lanarmon Lady Ashburton, **, Callington Lady Bertha, *c, Tavistock Levant, c, t, St. Just Llandegla, *!, Wales Llandegla, *!, Wales Lomax, **s-!, Helston Lovell, t, Wendron Marke Valley, c, Linkinhorne! Medlyn Moor, t, Wendron Mid-Devon, *c (& 1700, 3s. 4d. pd.) Monkstown, ** ara, Devon Mostyn Consols, *s-!, Flint	2	0	0	_	1
12000	Morfa Du, z, g, s, Anglesea*	1	0	U	7/8 3/4 7/8	1
6144	New Cook's Kitchen, t. Illogan	7	14	0	614 6 614	1
8000	New Dolcoath, t, c, Camborne*	3	0	0		1
10000	New Holmbush,* t, c, Callington	2	8	0	2 156 124	
12000	New Penrose, * t, c, Helston (11. sh).	0	10	U	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
3500	New Tincroft,* t, Lelant	6	10	0	3 24 3	
12000	Mount Carbis, t, c, Redruth New Cook's Kitchen, t, Illogan New Dolcoath, t, c, Camborne* New Holmbush,* t, c, Callington New Kitty, t, St. Agnes New Penrose,* t, c, Helston (11. sh). New Tincroft, * t, Lelant New Tumpet. t, Wendron New West Caradon, c, Liskeard New Wheal Peevor, t, Redruth New Wheal Peevor, t, Montgomery.* New Wye Valley, t, Montgomery.*	0	1	9	215% 13% 134 1 134 34 234 3 2414 234 134 34 1	
3000	New Wheal Peevor, t, Redruth	0	10	0	214134 214	*
35000	new wye raney, s, monigomery."	1	U	U	*/4 74 4	3

61	NON-DIVIDEND MINES		oni	tinue	d.
Share 20000	North Alfred, c, Phillack North Busy, t, c, Blackwater N, D'Eresby Mount, *, t, bt, Carnarv, North Herodsfoot, t, Liskeard North Holton, *c, ma, *t, Devon. North Herodsfoot, t, Liskeard North Control Herodsfoot, t, Liskeard North Penstruthal, t, c, Gwennap. North Penstruthal North Penstruthal Pandora, *t, Carnarvon Pant-y-Mwyn, *t, Mold Parys Corporation, *c, Anglesea Pateley Bridge, t, Yorkshire Pedn-an-drea, t, Redruth Pelyn Wood, c, Lanivery Pendarves United, c, Camborne. Penhale and Barton, t, St. Columb Pen-yr-Orsedd, *t, Flintshire Perran Consols, *s-t. Pioneer, *var. Wales Polyose, t, Cornwall	Pa 0	id. 10	Lan	wk. C
5328	North Busy, t, c, Blackwater	0	10		1/8
12000	North Herodsfoot, I Liskeard	0	6	0	141
50000	North Molton, * c, mn, t, Devon	1	0	6	38 ×
6000	North Penstruthal, t, c, Gwennap	1	8	6	2!
8000	Northern.* I. Durham	1	17	10	13614
40000	Okel Tor,* t, c, a, Calstock	i	0	0	11/2
80000	Old Shepherds s-l, Cornwall	0	5	0	1/8 1/
11612	Pant-y-Mwyn,* l. Mold	2	0 5 0 0 0 0 0 17 5	0	1341
45000	Parys Corporation, * c, Anglesea	1	0	0	3/8 3
6000	Pedn-an-dres t Redruth	1	0	0	36 1
12000	Pelyn Wood, c, Lanivery	ō	5	0	3433
600	Pendarves United, c, Camborne	8	0	U	214
12000	Pen-vr-Orsedd.* L. Flintshire	1	0	0	1½ 1½ 1½
15000	Perran Consols, *s-l	ī	Õ	U	1%
100000	Polyose t Cornwall	1	0 0 0 0 12 0 0 10 0	0	_
10000	Port Nigel,* s-l, Carnarvonshire	2	0	0	2 1
6000	Prince Royal, t, c, s-l, St. Agnes	1	0	0	1341
12000 30000	Silver Hill.* Callington	0	10	0	120-1
40000	Sortridge,* c, Horrabridge	1	0	U	114
50000	So. Cambrian, * 1, Cardiganshire	1	0	0	1341
30000 35000	So. Devon Unit., * c, Buckfastleigh.	1	00007	0	2 13, 1 14, 1 14, 1 14, 1 14, 1 14, 1 14, 1 14, 1
6000	Pioneer,* var. Wales Polrose, t. Cornwall Port Nigel,* s-t, Carnarvonshire Prince Royal, t. c, s-t, St. Agnes Prince of Wales, c, s. Calstock Silver Hill,* Callington Sootridge, c, Horrabridge So. Oambrian,* t, Cardiganshire South d'Eresby Mountain,* t. So. Devon Unit.,* c, Buckfastleigh South Penstruthal, t.c, Gwennap South Hoskear, t, c, Camborne South Wheal Crebor*, c, Tavistock South Wheal Crofty, c, Illogan St. Just United, Cornwall	1	7	6	13413
6000 6000	South Tolcarne, t. c. Camborne	8	5	U	
40000	South Wheal Crebor*, c, Tavistock	i	0	6	1%1
2043	South Wheal Crofty, c, Illogan	18	17	U	98
90000	South Wheat Crotty, c, filogan St. Just United, Cornwall Tamar, s-l, Bearalston* Teesdale,* Durham (pref.) Tin Hill,* St. Stephens.	3	5	0	
6400	Teesdale,* Durham (pref.)	1	G	U	36
20000	Tin Hill,* St. Stephens	1	0000	U	24
12000	Trebartha Lemarn, t, Callington	0	Ö	6	11/2 1
12000	Tin Hill,* St. Stephens	0	58000		1%1 361 241 141
10000	Tvn-v-Fron.* /. Cardiganshire	0	8	0	1141
35000	Un. Van & Glyn, *1, (& 17500 pref. sh)	i	Ö	0	36
1000 15000	Vaughan, * 1, Cardiganshire	10	0	0	-
20000	Walkham United,* t, c, Tavistock	1	0	0	11/4
12000	West Assheton, l, Carnarvon	1	005050	U	4
12000 3000	W. Craven Moor, L. Pateley Redge*	10	5	9	1 1/4
12000	West Crebor, c, Tavistock	0	5	0	14"
10240	West Devon Consols, c, Calstock	1	0	0	11/2
10000	West Holway, * l. Flintshire	0	10	0	1½ 2 2 1 5¾4 1¾1
6000	West Kitty, t, St. Agnes	Ô	12	0	5344
3000	W. Lisburne, * l, (1l. sh.) Cardigan	1	0	U	15%1
30000	West Pateley Bridge, * I, Yorkshire.	1	5	0	14"
6000	West Polbreen, * t, c, St. Agnes	0	2	0	15%1
5190 10000	West Vor. * t. Helston	5	10	0	15%1 5 2
2048	West Wheal Frances, t, Illogan	29	6	3	12341
3000 12000	West Wheal Peevor, t, Redruth	2	10	0	12¾1 15¾1
6000	Wheal Agar, c, Illogan !	14	6	0	13141
9144	Wheal Basset, c, Illogan1	5	8	U	54
3000 12000	Wheal Coates United.* t. St. Agnes	0	16	0	214
2585	W.Comf., & No. Tres., t, c, Gwennap	2	15	0	1 % 3¾ 1
50000	Wheat Elizabeth, * t, Cornwall	1	- 0	U	1
15000	Wheal George, * l, bl, Carnaryon	1	0	0	
1228	Wheal Jane, t, Keal	i	5	8	11/4
12000 25000	Wheal Jewell, c, St. Hilary	0	14		38
12000	Wheal Lusky, t, Callington	0	0	7	2½ 8s
200	Wheal Owles, t, St. Just I	7	0	0	
1200	Wheal Russell, c. Tavistock	1	10	V	2
600	Wheal Sisters, t, Lelant	3	5	0	21/2
409	Wheal Uny, t, c, Redruth	. 15	16	U	2 1/6
400	Temple, * I, Cardigan Trebartha Lemarn, t, Callington Trevince Consols, t, c, Gwennap Trugo, c, St. Columb Tyn-y-Fron, * I, Cardiganshire Un, Yan, & Lisu Un, Yan, & Glyn, * I, (& 17500 pref. sh) Vanghan, * I, Cardiganshire. Wincent, * Cardiganshire. Wincent, * Cardiganshire. Wincent, * I, Cardiganshire. West Cardon, c, St. Cleer W. Craven Moor, I, Oarnarvon West Cardon, c, St. Cleer W. Craven Moor, I, Pateley Brdge* West Devon Consols, c, Calstock West Devon Consols, c, Calstock West Devon Consols, c, Calstock West Devon Gonsols, c, Calstock West Berling, * I, Flintshire West Godolphin, t, c, Breage. West Holway, * I, Flintshire West West Pateley Bridge, * I, Yorkshire West Pateley Bridge, * I, Yorkshire. West Pateley Bridge, * I, Yorkshire. West Poldice, St. Day! West Vor, * I, Helston West Wheal Frances, t, Illogan! Wheal Basset, c, Illogan! Wheal Basset, c, Illogan! Wheal Goods Buffed, * t, St. Agnes W. Comf., & No. Tres., t, c, Gwennap Wheal Elizabeth, * t, Cornwall W. Fortune, * s, c, ars, Harrowbarrow Wheal George, * t, O, Carnarvon Wheal Google, St. Just! Wheal Jane, t, Keal Wheal Jane, t, Keal Wheal Jewell, c, St. Hilary. Wheal Owles, t, St. Just! Wheal Sisters, t, Lelant Wheal Isseell, c, Tavistock Wheal Sisters, t, Lelant Wheal Wheal Isseell, c, Favistock Wheal Sisters, t, Lelant Wheal Wheal Isseell, c, Tavistock Wheal Housell, c, St. Just! Wheal Sisters, t, Lelant Wheal Uny, t, c, Redruth Ystwith, * t, Cardigan		. 0	0	114

bl, blende; c, copper; g, gold; l, lead; s, sliver; sl, slats-s-l, silver-lead; t, tin; z, tinc; i, iron; a, arsenio.

* Limited Liability Companies; f quoted on the Stock Exch.

‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN				1
Shares.	F	Pand.	. Clos. pr	
67000 Akankoo,* g, Gold Coast	10	0	0 3%	72
12000 Arendal, c, Norway	4	0	0 234 2	14 1
20000 Asia Minor,* s-l, Lidjessy, Sivas	1	0	0	
30000 Blue Tent, hyd, California	5	0	0 2 2	4 1
30000 Bratsberg,* c, Norway	1	0	0 21/8 23 0 7/8 13	
0000 British Australian, *q, N. So. Wales	î	0	0	
000 Brazilian, g,* Brazil	2	0	0	1
out Camorina, g, Colorado		0	0 11/6 1	% j
0000 Callao Bis,*g, Venezuela 5000 Canada,* g	1	0	0	
5000 Canada,* g 5000 Canadian, c, sul,* Canada†	4	0	0 11/4 1	3/ 1
433 Cedar Creek, q. California*	5	Ö	0	74
3000 Central Jagerstontein Diamond"	5	0	0	- li
2000 Cherambadi (Wynaad) District,* g.	1	0	0	
0000 Chile,* g, Venezuela	î	ő	0 1/16 3	ha
0000 Colar,* g, Mysore	1	0	0	20
75000 Colombian Hydraulic, g, Colombia	1	0	0	
75000 Colombian Hydraulic, g. Colombia 75000 Colorado United, s-1 Colorado*†; 75000 Cootacovil,* g. Wynaad	5	0	0 1 1 2	78
20000 Devala Central, * g, Wynaad 10000 Devala Moyar, * g, Wynaad 15000 Devala Provident, * g, Wynaad † 150000 Devala Provident, * g, Wynaad †	1	0		1/6
00000 Devala Moyar, g, Wynaadt	1	0	0 1% 1	3/4
5000 Devala Provident,* g, Wynaad†	0	10	0 1/16 3	16
00000 Dingley Dell.* q, Devala, India	0	12	6	1
50000 Dieu Donné,* g, Surinam 00000 Dingley Dell,* g, Devala, India 00000 Don Pedro North del Rey*	î	0	0 36 3	6
5168 Eberhardt, s. Nevada*†	1	0	0 5% 3	6 1
20000 English Australian, q. Victoria*	1	0	0 36 13	8
5000 Eureka,* s, Nevada	1	0	0 1/16 3	10
0000 Flagstaff District,* s.g. Utah	1	0	0 716 7	
5000 Gold Coast,* q. Wassau	0	10		4 1
0000 Gold Hill, * g, North Carolina	1	C	0 134 1	3/4
0000 Gold Mining Assn. of Canada*	1	0	0	
20000 Great Southern Mysore, * g	1	0	0 3% 34	
10000 Hornachos,* s-l, Spain	10	0	0	
2000 Hultafall, * l, bl, Orebro, Sweden .	5	0	0 1 1/4 2	
10000 Ind. Glenrock, g, Wynaadt	0	5	U 156 1	34
0000 Indian Phenix, * g, Wynadt	1	0	0 1 1	34
0000 Indian Trevelyan, g, Wynaad	1	0	0 1 1	34
10000 I.X.L., g, s, California*	1	0	0 3/6 3/6	
50000 Kapanga,* g, New Zealand	1	0	0 36 3	6
25000 Keystone,* g, North Corolina	î	0	0	
65000 London and California and a	1	0	0	,
35000 Madras, * q. Mysore	2	0	D 3/6 3/4	
00000 Michipicoten, nat. c, Quebes	1	0	0 13/ 1	36
9(10) Missouri, l, pref (fully paid)	10	0	0	
35(00 Mysore,* q. Indiat	0	15	0	
50000 Gold Mining Assn. of Canada* 20000 Great Southern Mysore, *9 a. 20000 Hoover Hill, *9, North Carolina 12000 Hultafall, *1, bl., Orebro, Sweden 12000 Hultafall, *1, bl., Orebro, Sweden 12000 Indian Mammoth, *9, Q. Ohulimulla, 50000 Indian Pheenis, *9, Wynaad † 50000 Indian Pheenis, *9, Wynaad † 50000 Indian Pheenis, *9, Wynaad † 50000 Javall, *9, New Zealand 20000 Javall, *9, New Zealand 2000 Kapanga, *9, New Zealand 2000 Kapanga, *9, North Corolina 00000 La Concepcion. *9, Venezuela 65000 London and California, *9* 1 35000 Madras, *9, Mysore 0000 Missouri, !, pref (fully paid) 55000 Mosoele, *1, b-1, Germany 55000 Mysore, *9, India† 2000 Mysore Reefs, *9, Madras 40000 Nava de Jadraque, *9, *8, Spaln 25000 Nedelerook, *9, Mynaad 37000 N. Gold Run, *hyd, Oal.(& 27000 pre	0	15	0134 15	3
40000 Nava de Jadraque, * g, s, Spain	1	0	0	
25000 Needlerock,* g, Wynaad	1	0	0	
		0	0	1
		0	0	
75000 Norway, c, Halsönön and Radön	. 1		0	.
100000 Nine Keels, g, Kolar, Mysore	1		0 1 1; 0	74
150000 Olathe, * s-l, Leadville, Colorado	. 1		0	
	. 1	0	0 56	36
15000 Organos, g, Colombia	1		0	
80000 Pestarena United, g, Italy*i	. 5		0 34	36
100000 Pierre d'Or,*g, Spain 80000 Pierrefitte* (20000 pref.) 30000 Piacerville, g, q, California 50000 Potosi,*g, Venezuela†	. :	1 0	0	0
30000 Pierrefitte* (20000 pref.)	. 1	0	0	
50000 Placerville, g, q, California	. 3	1 0	0256 2	36 34
300000 Providence, g, s, California		1 0	0	/3
300000 Providence, g, s, California 50000 Rara Fortuna, s, Argent. Repub 40000 Ravenscliff, g, N. Zlnd; c, S. Aust 190000 Rhodes Reef, g, Wynaad†		1 0	0	
190000 Rhodes Reef.* q. Wynaedt	. (0	
y, 11 ymmu		1 0	0 34	1 1

Share		i	Paria	l. Clos.	pr.
25000	Rico, s, Colorado (nonassessable) .	2	0	0 1	11/4
8600	Rio Grande do Sul* (and 31,000 pref.)	5	0	0	
100000	Rossa Grande, q, Brazil*† (£1 sh.).	1	0	0 3/8	71/2
25300	Ruby and Dunderberg, g, Nev. * †	10	0	0 7	71/2
34022	San Pedro,* c, Chili	1	15	0	
120000	Santa Cruz,* sul, c. Ferrol, Spain	1	0	0 5/8	
250000	Silver Peak, * s, Colorado	1	0	011/8	13%
200000	Souback & Catir Alan, * s-1. Turkey.	1	0	0	
100000	So. Indian, * g, Madras (fully pd.)	1	0	0134	2
100000	South-East Wynaad, q. Indiat	1	0	0136	15%
150000	Taunus,* s-l, c, Germany	1	0	0	
43174	United Mexican, *†! s. Mexico	29	5	3 2	234
100000	Victorine (Nevada, U.S.) Deb. Bds.	1	0	0	
50000	Virneberg, c, Rheinbreitb., Ger	2	0	0	
120000	Wentworth, * q, Wynaad	1	0	0	
100000	West Frntno & Boliv., * a. Colombia	1	0	0	
100000	Wynaad District, * a. India	1	0	0	
80000	Wynaad Perseverance, *† q	1	0	0134	136
75000	Yorke Peninsula, c. So. Australiat	1	0	011/4	34
54800	Yorke Pen., c, South Aust. Pref.t	1	0	0 56	74

		INSURANCE COMPANII	ES.				
ssue.			Pd		Clos.	pr.	
0000	100	Alliance British and Foreign	11		3816	3934	
0000	100	Ditto, Marine	20			30	
0000	30	British and Foreign Marine [L].	4			23 xd	
0000	50	Commercial Union	5		25	27	
0000	50	Eagle	5		634	6 7	
5000	20	Globe Marine [L]	11				
7500	100	Imperial Life	10		22	24 x 1	
3453	100	Indemnity Marine	50		124	127	
0000	10	Lion Pine II.	- 12		23	3	
9626	20	L'pool & Lond, Globe (£1 annty)	2		21	22	
5862	25	L'pool & Lond, Globe (£1 annty) London	1236		66		
0000	25	London and Lancashire Fire	234		6	61/6	
0000	20	London and Provincial Marine	2		534 !	53/4 xd	
0000	100	Marine	18		117		
0000	10	Merchants' Marine	2		13	134	
0000	10	Maritime	2		734	73/4	
0000	50	North British and Mercantile	834		66		
0000	100	Northern	5	400	57	58	
0000	25	Ocean Marine	5			934	
	_	Phœnix Fire	-				
0000	10	Queen	1	***		43/4	
0000	10	Railway Passengers	298		734	814	
0000	5	Rock Life	31	á	814	9 xd	
0000	10	Sea	2	***		51/8	
5000	20	Lancashire	2		83/4	91/4	
4000	20	Standard Marine	4			7 7/8	
0000	20	Thames and Mersey Marine [L].	2		1334	14%	
0640	20	Union Marine, Liverpool [L]	334	§		634	
0000	20	Universal Marine [L]	3		8	836	

MISCELLANEOUS

Smares	. Company.	₽u	KCK,		17	ice.
25	Australian Agricultural	21	10		72	74
10	Brighton Aquarium [L]	10	0		436	5
25	City of London Real Property	12	0		1534	161/
	Fore Street Warehouse [L]					
	Foster, Porter, and Co. [L]					18
736	Imperial Credit [L]	7	10	***		_
10	Milner's Safe [L]	10	0		934	10%
25	National Discount [L]	5				1136
	Pawson and Co. [L]				636	7
	Peninsular and Oriental Steam				59	61
Btk.	Scottish Australian Invt. Co. 1	100			209	214
	Ditto New Ordinary				105	
	Ditto 6 per c. guar, pref 1				127	
	Ditto 5 per c. guar. pref!				107	109
	Telegraph Const. & Maint. [L]				3234	323/4
	Ditto, 2nd Bonus, 3 per cent				3 7%	
	Zeedone [L]	1	0	***	13%	23/8

IRON AND COAL COMPANIES

Share	es. Company.	Pa	id.	P_r	ice.	- 1
	Abbot, John, and Co [L] £			35	30	dis
5	Alltami Colliery Co. [L]	5	0	3	4	1
100	Ashbury Co. [L]		0		-	1
3	Bagnali, John, and Sons [L]	3	0	36	5/8	- 1
10	Benhar Coal Co. [L]	10	0	11%	136	- 1
10	Bilbao Iron Co. [L]	10	0	5	51/4	- 1
20	Bolckow, Vaughan, & Co. [L] A	12	0	434	41/2	pm
50	Brown, Bailey, and Dixon [L]	40	0	23	21	dis
100	Brown, John, and Co. [L]	70	0	53	54	
		-		00		- 1
3	Cakemore, Cseway, Grn. ord.sh.	3	0		-	- 1
100	Ditto (7½ per cent. pref.)	3	0		201/	ata I
100	Cammell and Co. [L]	80	0	11	101/2	
10	Cannock & Huntington Coal[L]	10	0	11	101/2	dis !
10	Central Swedish Iron &Stl.[L]	10	0	1	11/4	
50	Charlton Iron Co. [L]	50	0	3	31/2	- 1
30	Chatterley Iron Co. [L]	50	0	6	7	- 1
10	Chillington Iron Co. [L]	10	0	23%	25%	
10	Consett Iron Co. [L]	7	10	171/4	1734	
1	Consett Spanish Ore [L]	1	0	- 23		pm
20	Darlington Iron Co. [L]	18	10	181/2	18	dis
50	Davy Brothers [L]	22	10	9		pm
23	Ebbw Vale Co. [L]	20	0	73/4	8	- 1
	Genl. Mining Ass. [L] (ful.pd.)		0	31/2	4	
	Knowles, Andrew, and Co. [L]		0	14	13	dis
20	Llynvi and Tondu [L]	20	0	8	816	
10	Lydney & Wigpool Iron Ore[L]	9	5	9	8	dis
10	Marbella Iron Ore Co. [L]	10	0	7	71/2	
10	Midland Iron Co. [L]	5	0	136	2	pm
10	Monkland Iron & Coal Co. [L]	10	0	2	236	
9	Mwyndy Iron Ore [L]	3	15	11/2	2	- 1
100	Nant-y-Glo & Blaina(8 p.e. prf.)		C	34	35	- 1
3	Nerbudda Coal and Iron [L]	2	1/8	- 28	3/8	- 1
10	Newport Abercarn Coal Co. [L]	10	0	51/4	6	
35	Palmer's Shipbldg. & Iron [L]	35	0	281/2	283/4	_
100	Parkgate Iron Co. [L]	65			1¼ di	
20	Patent Nut and Bolt [L]	14	0		10%	pm
	Pelsall Coal and Iron [L]	20		12%	1234	
50		50	0		28 14	
	Sandwell Park Colliery Co. [L]					- 1
	Shotts Iron Co. [L]		0	55	60	dis
20	Sheepbridge Iron and Coal [L]	20	0	734		dis
50	Silkstone & Dodw.Cl.& Iron [L] Somorrostro Iron Co. [L]	50	0		_	
100	Staveley Iron and Coal Co. [L]	00	0		1314	7777
				17%		
	Ditto ditto B Teesside Iron & Engine Works			2 78	23	pui
	Tredegar Iron and Coal, A [L]					dis
	Ditto ditto B			19	1916	
	Ulverston Mining Co. [L]				13	dia
30	Vancouver Coal [L]	. 6		3	4	
	W.Cumberland Iron & Steel [L]			49.6	814	
61		1 00	W 000	. 74	-/4	

		BANKS.			
Issue.	Sho	res. Pd.		Clos.	pr.
00000	10	Agra [L]all		10	10%
80000	20	Anglo-Egyptian Banking [L] all		28	29
30000	40	Bank of Australasia all		78	80
12500	20	Bank of British Columbia all		19	20
20600	50	Bank of British North America., all		58	
10000	25	Bank of Egypt ' all		29	31
50000	20	Bank of New South Wales all		60	62
100000	10	Bank of New Zealand ali	***	2416	251/6
25000	25	Bank of South Australia all		40	42
20000					36
40000		Chartrd. of Ind., Aust., & China. all			25
30000	25	Ch. Merc. of Ind., Lond., China. all		223/4	2334
20000	100				
50000	20				
60000	25	London and River Plate [L] 10	***	133/4	
50000		London and San Francisco [L] all			
50000	20	London Chartered of Australia all		1934	201/3
100000	11	National Bank of N. Zealand [L] 35	6	334	33/4
60000	25	Oriental Bank Corporation all		211/6	221/2
12500	10	Queensland National [L] 5		83/4	9%
34000		Stndrd. of British So. Africa [L]. 25			57
50000	25	Union of Australia		66	67

GAS COMPANIES.

ssue. Shares.	Pd.	C
5000 20Bahia [L]	610	11
3000 5 Bombay [L]	all.	-
0000 5 Bombay [L]	a	
9700StkBrentford Consolidated	100	16
4000 20British	ell	10
0000StkCommercial	100	10
0000 20Continental Union [L]		21
0000 20 Do. do. New, 1869, 1872 .	411	14
0000 20 Do. do. 7 per ct. Preference	17	24
3406 10European [L]	all	49
94850 .StkGaslight and Coke, A, Ord.	811	19
12008tk Do, 4 per cent. Deb. Stock.	100	17
5000 10Hong Kong and China	100	10
200000 Btk Troposial Continents	811	13%
00000 .StkImperial Continental	100	1
6500StkLondon	100	1
2000 5 Malta & Mediterranean [L]	all	2
25000 20 Metrop. of Melbourne 6 p.c. I)eb	
5000 20Monte Video [L]	all	14
10000 5Ottoman [L]	all	- 2
30000 5Oriental [L]	., all	
27500 20Rio de Janeiro [L]	all	24
0000 8tk South Metropolitan. A	100	20
500006tk Ditto, ditto. B	100	17

TRAMWAYS.

000	5 .	Anglo-Argentine [L] all
0000	10	Barcelona [L] alll
7140	10	Belfast Street Tramways all
3050	10	Birkenhead, Ordinary all
000	10	Ditto, 6 per cent. Preference., all .1
		Bristol [L] 10 .1
5000	10	Bordeaux Tram & Omnibus [L], all!
3200	10	Chester [L] all
1000	10	Dublin all
1690	10	Edinburgh Street Tramways ali 1
5000	10	Glasgow Tramway & Omni. [Li. 9 .1
0000	10	Hughes Loco, and Tram, works, all
7500	10	Hull Street Tramways all
7500	10	Imperial [L] all
4000	10	Liverpool Unit. Tram & Om. [L] all
5000	10	London [L] all
5000	10	London Street Tramways all
000	10	North Metropolitan all
		Nottingham and District [L] all
5947	10	Provincial [L]ali
6000	10	Sheffield
5000	10	Southampton al'
		Sunderland [L]all
0000	10	Swansea [L] all
		Tramways of France [L] all
6500	10	Tramways of Germany [L] all
0000	5	Tramways and Gen. Works [L]. all
0000	5	Tramways Union [L] all
5000	10	Vale of Clyde 6
7200	10	Wolverhampton [L] all

TELEGRAPH COMPANIES

Shares.		Pd.			Clos. 1	
Stk.	Anglo-American	100	0		52 34 5	
10	Brazilian Submarine	10	0		10%	
10	Cuba	10	0		9%	
	Direct Spanish	9	0		41/2	
20	Direct United States Cable	20	0		1034	
10	Eastern	10	0		1056	
10	East, Exten. Austr. and China	10	0		111/4	
10	German Union	. 10	0		11	
10	Great Northern	. 10	0		131/4 1	
25	Indo-European	. 25	0		28 2	
10	London Platino Brazilian	. 10	0		574	

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